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ERRATA.

Page 2, Line 2, *Erase* "was."

- „ 11, Note, *one piece of the bracket has been omitted.*
- „ 12, Line 46, *for Cinnamon read Tinnamou.*
- „ 21, „ 24, *for any read my.*
- „ 33, „ 27, *for Uvæan read Golden-shouldered.*
- „ 118, „ 14, *for temptation read temptation.*
- „ 118, „ 23, *for indigestable read indigestible.*
- „ 123, „ 1, *for indiscriminately read indiscriminately.*
- „ 133, „ 20, *for Hornbull read Hornbill.*
- „ 224, „ 4, *for Zanthura read Xanthura.*
- „ 233, „ 4, *for W. S. Page read W. T. Page.*
- „ 248, „ 22, *for dispises read despises.*
- „ 251, „ 26, *for Auricomus read auricomis.*
- „ 251 „ 26, comma after "Warty-faced."

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THE

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FOR THE STUDY OF
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(July, 1895).

BERKELEY, The Baroness, Martin's Heron, Bracknell, Berks. (Dec., 1894).

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W.C. (Orig. Mem.)*

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(Nov., 1896).
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(April, 1896).
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(Mar., 1898).
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(June, 1895).*
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- CASTELLAN, Mr. VICTOR, Hare Hall, Romford, Essex. (Orig. Mem.)
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- CAUSH, Mr. D. E., 63, Grand Parade, Brighton. (Orig. Mem.)
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- CHARRINGTON, Mrs. MOWBRAY, The Warren, Hever, Edenbridge, Kent.
(May, 1896).
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- CLARK, Mr. A., Rosebery Villa, Brook Street, Luton. (Jan., 1899).
- COCKSEGE, Mr. E. LE HOUP, Beyton Grange, Suffolk. (Mar., 1898).
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N.W. (April, 1898).
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(Jan., 1897).
- CONNELL, Mrs. A. KNATCHBULL, The Hermitage, Godalming. (Nov. 1897).
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(Dec., 1894).
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- CRONKSHAW, Mr. J., 85, Plantation Street, Accrington. (Dec., 1894).
- CUMMINGS, Mr. ALEXANDER, 16, Promenade Villas, Cheltenham.
(Dec., 1896).

CUNLIFFE, Mr. HENRY JAMES, M.A., 20, Eaton Gardens, Hove. (May, 1899).
 CUNLIFFE, Mrs. H. J., 20, Eaton Gardens, Hove. (May, 1899).
 CUSHNY, Mr. CHARLES, Pain's Hill, Cobham, Surrey. (June, 1896).

DALE, Dr. F., Park Lee, Scarborough. (Dec., 1894).
 DALY, Mr. EDWARD D. H. (late Lieut., Bengal Staff Corps), Cavello Cottage, The Purlieu, Hythe, Southampton. (Dec., 1895).
 DENT, Mr. C., Old Bank, Scarborough. (Feb., 1899).
 DEVAS, Mr. GEORGE, Hartfield, Hayes, Kent. (Oct., 1898).
 DEWAR, Mr. J. F., 2, St. Patrick's Square, Edinburgh. (Orig. Mem.)
 DINGWELL, Mrs., Knollys Croft, Leigham Court Road, Streatham, S.W. (Aug., 1898).
 DRUITT, Mr. C. F., Rainsford House, Chelmsford, Essex. (Jan., 1899).
 DUNCOMBE, The Hon. Mrs., The Grange, Nawton, R.S.O., Yorks. (April, 1897).
 DUNLEATH, The Lady, Ballywalter Park, Ballywalter, co. Down. (Aug., 1897).
 DUTTON, The Hon. and Rev. F. G., Bibury, Fairford. (Orig. Mem.)
 DYSON, Miss F., 3, Donnington Villas, Newbury, Berks. (Feb., 1898).

EAGLE, Mr. F. GRANT, 16, Hart Street, Edinburgh. (Jan., 1899).
 EDWARDS, Miss K., 140, Lower Addiscombe Road, Croydon. (Mar., 1898).

FARNBOROUGH, Mr. PERCY W., F.Z.S., The Public Library, Edmonton. (June, 1896).*

FARRAR, The Rev. C. D., Micklefield Vicarage, South Milford, Yorks. (Jan., 1895).

FIFE, Mrs., Langton Hall, Northallerton. (Oct., 1898).

FILLMER, Mr. H. R., Brendon, Harrington Road, Brighton. (Orig. Mem.)

FINN, Mr. F., B.A., F.Z.S., Indian Museum, Calcutta. (Mar., 1895).

FISHER, The Rev. WILFRED, Parklands, Lustleigh, Newton Abbot. (Dec., 1894).

FLINT, Mr. J. L., Guildhall Club, Newbury. (Feb., 1897).

FOWLER, Mr. CHARLES, 26, Broad Street, Blaenavon. (Dec., 1894).

FOX, Mr. C. J., 35, Addington Street, Ramsgate, Kent. (May, 1897).

FRANKLIN-HINDLE, Mr. R., 13, Regent Road, Birkdale, Southport. (Sept., 1898).

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GIBBINS, Mr. WILLIAM B., Ettington, Stratford-on-Avon. (June, 1895).*

GILLETT, Miss A. K., Duffield Bank House, Derby. (Nov., 1897).

GLASSCOE, Mr. GEORGE D., 45, Gaywood Road, Walthamstow. (Dec., 1898).

GODDARD, Mr. H. E., 5, Latchett Road, South Woodford. (Feb., 1899).

GOODFELLOW, Mr. WALTER, 13, Brunswick Square, London, W.C. (June, 1897).

GRACE, Mr. GUSTAVE LE CARPENTIER, 24, Wood Street, Wakefield. (Mar., 1896).

GREEN, Mr. ALBERT, 4, Cunnor Terrace, Bournemouth. (Feb., 1898).

GRIFFITHS, Mr. E., Brislington House, Bristol. (Orig. Mem.)

GRIGGS, Dr. W. A., 77 and 79, High Cross Street, Leicester. (Oct., 1898).

HAMILTON, Mrs., Bannerdown House, Batheaston, Bath. (Feb., 1895).

- HAMMOND, Mrs. W. A., 2, Eaton Gardens, Hove. (Orig. Mem.)
- HARBOTTLE, Miss, Meadowside, Victoria Place, Budleigh Salterton, Devon. (Dec., 1895).
- HARDINGE, The Hon. Lady, La Petite Maison, Costie-Belle, Hyères, Var, France. (Nov., 1896).
- HARDINGE, The Viscountess, South Park, Penshurst. (Mar., 1899).
- HARRISON, Miss EDITH, Waterhouse, Bath. (Sept., 1895).
- HARTLEY, Mrs., St. Helen's Lodge, Hastings. (April, 1897).
- HAWKINS, Mr. L. W., Estrilda, Clive Road, West Dulwich, S.E. (Jan., 1899).
- HENNIKER, Capt. F., The Callow, Ashbourne. (Feb., 1899).
- HENWOOD, Mr. T. F., Auricula Villa, Hamilton Road, Reading. (Dec., 1894).
- HETT, Mr. CHARLES LOUIS, Springfield, Brigg. (Jan., 1896).
- HINKES, Mr. R. J., Foxley, Hereford. (Feb., 1899).
- HINCKS, Mr. J. W. R., Leicester. (Oct., 1899).
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- HUGHES, Mrs., 1, Merton Terrace, Brighton Road, Worthing. (April, 1895).
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- HUMPHRYS, Mr. RUSSELL, Lingdale, Bickley, Kent. (April, 1896).
- HUSBAND, Miss, Clifton View, York. (Feb., 1896).
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- JENNISON, Mr. GEORGE, Devonport Park, Stockport. (Sept., 1897).
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- KING, Mr. J. B., Annandale House, Glebe, Kilmarnoch. (Oct., 1896).
- KEENE, Mrs., 39, Hough Green, Chester. (Feb., 1897).
- KENYON, Lord, Gredington, Whitchurch, Shropshire. (Feb., 1899).
- KNEEN, Mr. T. E., 92, Harrington Road, Workington. (June, 1895).*
- LAMB, Mrs. R. O., West Denton, Scotswood-on-Tyne. (Mar., 1898).
- LANCASTER, Mrs., 7, Victoria Terrace, Walsall. (Aug., 1897).
- LANDLESS, Mr. W., Portland Villa, Waterloo Road, Aslton-on-Ribble, Preston. (Dec., 1896).
- LASCELLES, The Hon. GERALD W., Queen's House, Lyndhurst. (Oct., 1896).
- LAW, Mr. E. C., 2, Cromwell Road, Teddington. (Dec., 1897).
- LEADBETTER, Mr. RICHARD, 15, Trinity Road, Penge. (Dec., 1894).
- LEEDER, Mr. J. VINER, Dorset House, Bryn Road, Swansea. (Nov., 1899).
- LEGARD, Mr. A. W., Cooling Castle, Rochester. (Feb., 1899).
- LENNIE, Mr. J. C., Rose Park, Trinity Road, Edinburgh. (Orig. Mem.)*
- LILFORD, The Lady, Lilford Hall, Oundle, Northamptonshire. (Jan., 1898).
- LLEWELYN, Miss, 188, Earl's Court Road, London, S.W. (Orig. Mem.)*

- LONG, Mrs. HUME, Dolforgan, Exmouth. (June, 1895).
- LONG, Miss MURIEL M. L., Snowdon Lodge, Lymington, Devon. (Feb., 1898).
- LOW, Mrs., Kilshane, Tipperary, Ireland. (Feb., 1895).
- LYNCH, Mr. CYRIL, 45, Rua Dr. Corrêa, Cattete, Rio de Janeiro, Brazil. (April, 1897).
- LYON, Lieut.-Col. F. L. H., R.A., J.P., Harwood, Horsham. (Nov., 1894).
- MARSH, Mrs., 49, Sackville Road, Hove. (Dec., 1894).
- MARSHALL, Mr. THOMAS, The Grange, 128, High Street, Poplar, E. (Dec., 1894).
- MARTIN, Mr. H. C., 16, Victoria Road, Old Charlton, S.E. (Jan., 1897).
- MAXWELL, Mr. C. T., South Lawn, 24, Acre Lane, Brixton, S.W. (Mar., 1896).
- MCCORQUODALE, Mrs., Gadlys, Llansadwrn, Isle of Anglesea. (May, 1898).
- MEADE-WALDO, Mr. E. G. B., Stonewall Park, Edenbridge, Kent. (Jan., 1895).
- MITCHELL, Mrs., Crakelhall, Bedale, Yorkshire. (Sept., 1898).
- MIDDLESTON, Mrs. R. M., 67, Cheyne Court, Chelsea. (Mar., 1899).
- MILLER, Lady, The Knole, Bournemouth. (July, 1899).
- MOERSCHER, Mr. F., Imperial Hotel, Malvern. (June, 1895).
- MORSHEAD, Lady, Forest Lodge, Binfield, Bracknell, Berks. (Dec., 1894).*
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- NICHOLSON, Mr. ALFRED E., Emlinville, Coltbridge Avenue, Edinburgh. (Oct., 1896).*
- NICHOLSON, Mr. W., 67, High West Street, Gateshead. (Feb., 1898).
- OAKEY, Mr. W., 46, High Street, Leicester. (Mar., 1896).*
- OATES, Mr. F. W., White House Farm, New Leeds, Leeds. (Oct., 1897).
- O'BRIEN, The Hon. Mrs., Moor Park, Ludlow. (Nov., 1897).
- OLIVER, Dr. G. H., Station Road, Clayton, Bradford. (Feb., 1897).
- O'REILLY, Mr. NICHOLAS S., 9, Royal Crescent, Ramsgate, Kent. (Dec., 1894).
- OSBALDESTON, Mr. W., 2, St. John Street, Preston, Lancashire. (June, 1895).*
- OWEN, Mr. J. A., 41, King's Road, Brighton. (April, 1895).
- PAGE, Mr. WESLEY T., 6, Rylett Crescent, Shepherd's Bush, London, W. (May, 1897).
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- PERRIER, Mrs. LUMLEY, Saville House, Twickenham. (Feb., 1899).
- PHILLIPPS, Mr. R., 26, Cromwell Grove, West Kensington Park, London, W. (July, 1899).*
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- PHILLPOTTS, Miss CONSTANCE, Elmhurst, Canterbury. (Feb., 1897).
- PITT, Dr. G. NEWTON, 15, Portland Place, W. (Dec., 1894).
- PITT, Mrs., The Nest, Torquay. (Dec., 1894).
- PLOMLEY, Dr. J. F., Knighttrider House, Maidstone. (Feb., 1898).
- POOL, Mr. J. C., Carr's Lane, Birmingham. (Orig. Mem.)

- REAY, Mr. JOHN HENRY ALFRED, 7, Rosemont, Wallington, Surrey. (April, 1898).
- REID, Mrs., Funchal, Madeira. (Feb., 1895).
- REID, Mr. WILLIAM, 26, Fountainhall Road, Edinburgh. (Dec., 1894).
- RETTICH, Mr. A., 10, Northanger Road, Streatham Common, S.W. (July, 1895).
- RICARDS, Mrs., SIDNEY, Tillingbourne, Wotton, nr. Dorking. (July, 1899).
- RICHARD, Mr. F., Hotel Metropole, Brighton. (Orig. Mem.)
- ROBERTS, Mr. NORMAN B., Asidell Cottage, Sheffield. (Feb., 1898).
- ROGERS, Miss G. COXWELL, Park Gate, Cheltenham. (Dec., 1895).
- ROTCH, Mr. CLAUDE D., 3, Beach Lawn, Waterloo, near Liverpool. (June, 1897).
- ROTHERA, Mr. C. L., B.A., Hazelwood, Forest Grove, Nottingham. (July, 1895).
- ROWE, Lady, Bridge Hall Farm, Burgess Hill, Sussex. (Dec., 1895).
- SALT, Dr. E. G., 50, George Square, Edinburgh. (July, 1895).
- SAVAGE, Mr. A., 3, Rue Bihorel, Bihorel, Rouen, Seine Inférieure, France. (April, 1895).
- SAVEGE, Dr. GEORGE, 24, Railway Street, Beverley. (Oct., 1896).
- SCRIVENS, Miss, Millfield, Bexhill-on-Sea, Sussex. (July, 1895).
- SEAMAN, Mrs., 30, Elvaston Place, Queen's Gate, S.W. (May, 1897).
- SECRETARY, The, Natural History Society, Rugby School, Rugby. (Orig. Mem.)
- SERGEANT, Mr. J., 10, London Street, Southport. (Orig. Mem.)*
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- SHEFFIELD, Mr. G. H., 1, Bristol Terrace, Beech Grove, Newcastle. (April, 1899).
- SHERBROOKE, Mrs. K., Keldholme Priory, Kirkbymoorside, Yorkshire. (Mar., 1897).
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- SIVEWRIGHT, Miss H. A., The Rise, Headington Hill, Oxford. (Dec., 1895).
- SLATER, Mr. ARTHUR A., Windleshaw House, St. Helen's. (Nov., 1894).
- SMART, Mr. JOHN, 12, Royal Crescent, Edinburgh. (Nov., 1894).
- SMITH, Mr. H. B., Grangefield, Park Road South, Birkenhead. (June, 1895).*
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- SMITH, Mr. E. E., 133, Alderson Road, Sheffield. (Oct., 1898).
- SMITH, Mrs. Horace, Lingdale, Lansdowne Road, Bournemouth. (Oct., 1899).
- SOPER, Mrs. GARLAND, Harestone, Caterham Valley. (Nov., 1899).
- SPEED, Mr. CHARLES, 42, Garth Road, Bangor. (Dec., 1894).
- ST. QUINTIN, Mr. W. H., Scampston Hall, Rillington, York. (Orig. Mem.)
- STAINES, Mr. E. P., 112, Woodbine Grove, Penge. (May, 1897).
- STANSFELD, Mr. JOHN, Dunninald, Montrose, N.B. (Dec., 1896).
- STANVORTH, Mrs., Kirk Hammerton Hall, York. (Nov., 1897).
- STEVENS, Mr. W. E., Punchbowl Hotel, Lowther Street, York. (June, 1899).
- STORY, Mr. J., 7, Blenheim Terrace, St. John's Wood, N.W. (Orig. Mem.)*
- STURTON-JOHNSON, Miss, Ortava House, Ore, Hastings. (May, 1897).
- SWAILES, Mr. GEORGE C., Beverley, Yorks. (June, 1895).
- SWAYSLAND, Mr. WALTER, 184, Western Road, Brighton. (Orig. Mem.)*
- SWIFT, Mr. DONALD, 58, Avenue Road, Crouch End, N. (Dec., 1898).
- SWINFEN-BROWN, Mrs. LAURA, Swinfen Hall, Lichfield. (Feb., 1898).

- TATE, Mr. ALAN, 229, Allen Street, Sheffield. (June, 1897).
- THOM, Mr. A. A., Birkacre House, Birkacre, near Chorley. (June, 1895).*
- THOMAS, Mr. HENRY, 78, Harlow Terrace, Harrogate. (Jan., 1895).
- THOMAS, Miss. Hemsworth Rectory, Wakefield. (Mar., 1899).
- THOMASSET, Mr. BERNARD C., West Wickham, by Beckenham, Kent. (July, 1896).
- THOMPSON, Mrs. WALDEGRAVE, Forest Lodge, 23, Ravenscourt Park, W. (Dec., 1895).
- THURSBY, Mrs., Bank Hall, Burnley. (June, 1895).*
- TINNE, Mrs. J. C., Bashleigh Lodge, Lymington, Hants. (Sept., 1898).
- TODD, Mr. R. A., Honeyden, Foot's Cray, Kent. (June, 1895).
- TOPHAM, Mr. WILLIAM, The Hill, Spondon, Derby. (Feb., 1895).*
- TOWNEND, Mr. FRANK H., 26, Donnton Road, South Croydon, Surrey. (May, 1895).*
- TOWNSEND, Mr. STANLEY M., 3, Swift Street, Fulham, S.W. (Sept., 1898).
- TURNER, Mr. THOMAS, J.P., Cullompton, Devon. (Dec., 1895).
- VALENTINE, Mr. E., Highfield, Workington. (May, 1899).
- VERRALL, Mr. CLAUDE H., Johannesburg, Streatham Common, S.W. (May, 1897).
- WARD, The Hon. Mrs. SOMERSET, Isle o' Valla House, Downpatrick, Ireland. (Aug., 1897).
- WALKER, Miss H. K. O., Chesham, Bury, Lancashire. (Feb., 1895).
- WALKER, Mrs. ARTHUR, 48, Crawley Gardens, S. Kensington, S.W. (April, 1898)
- WEBB, Mr ARTHUR W., 12, The Mansions, Richmond Road, S.W. (March, 1896)
- WEST, Miss E. E., The Homestead, Hawthorne Road, Bickley Park, Kent. (April, 1898)*
- WHYTEHEAD, Mr GODFREE Y., 6, Bootham Terrace, York. (April, 1897)
- WHYTEHEAD, Mr T. B., Acombe House, York. (April, 1897)
- WIENER, Mr AUG. F., 48, Upper Bedford Place, Russell Square, W.C. (July, 1896)
- WILDE, Miss, Little Gaddesden, Berkhamstead. (December, 1896)
- WILKINSON, Miss BEATRICE, End Cliffe, Manor Road, Edgbaston, Birmingham. (December, 1894)
- WILLIAMS, Mrs LESLIE, 8, George Street, Bathwick, Bath. (June, 1895)
- WILLIAMS, Dr. J. D., 93, Newport Road, Cardiff. (February, 1897)
- WINCHELSEA and NOTTINGHAM, The Dowager Countess of, 6, Bedford Square, London, W.C. (May, 1895)
- WORDSWORTH, Miss A. M., 149, King Richards Road, Leicester. (April, 1895)
- WRIGHT, Mrs G. J., 3, Rose Villas, Picton Road, Ramsgate. (Feb., 1898)
- YARBOROUGH, Mrs Campsmount, Doncaster. (Nov., 1899).

DECEASED MEMBERS.

1894.

Lady MACDONALD. (Orig. Mem.)

1895.

Mr. H. HOLLOWAY. (July, 1895)

1896.

Mr ROBERT DASHWOOD. (Orig. Mem.)*

Mr H. C. GREAME. (June, 1895)

The Hon. MARIQUITA MILLES. (Dec., 1894)

1897.

Mr HENRY ERSKINE ALLON, M.A. (Feb., 1896)

Mr WILLIAM THOMPSON. (May, 1897)

1898.

Mr E. G. HALLAM. (June 1895)

Mr D. MEINERTZHAGEN. (Dec., 1896)

1899.

The Rev. CHAS. DENT BELL, D.D. (June, 1895)

Sir HENRY SOMERVILLE BOYNTON, Bart. (Jan., 1895)

Mr R. J. RAILTON. (April, 1897)

Mrs. FRANCIS. (June, 1896)

RULES OF THE AVICULTURAL SOCIETY.

1.—The name of the Society shall be "THE AVICULTURAL SOCIETY," and its object shall be the study of Foreign and British Birds. Poultry, Pigeons and Canaries shall be outside the scope of the Society.

2.—The officers of the Society shall be elected annually by the members in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Treasurer, a Secretary, an Editor, an Auditor, a Scrutineer, and a Council of twelve members. The Secretary, Editor and Treasurer shall be *ex-officio* members of the Council.

3.—Each member shall pay an annual subscription of 7/6, to be due and payable in advance on the 1st of November in each year. New members shall pay an entrance fee of 2/6. Any member whose subscription or entrance fee shall be four months overdue shall cease to be a member of the Society, and notice of his having ceased to be a member, and of the cause, shall be inserted in the Magazine.

4.—New members shall be proposed in writing; and the name and address of every person thus proposed, with the name of the member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two members, he shall be deemed to be duly elected. If five members shall lodge with Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two-thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—The Magazine of the Society shall be issued on the first day of every month, and forwarded, post free, to each member. The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Council). The Secretary and Editor shall respectively refer all matters of doubt or difficulty to the Council. The decision of the majority of the Council shall be final and conclusive in all matters.

6.—The election of officers shall take place every year between the 1st and 14th of October. All candidates must be proposed by one member and seconded by another member (in writing) before they shall be eligible for election; but this shall not apply to officers willing to stand for re-election to the same office. All such proposals which have been duly seconded must be sent to the Secretary before the 14th of September. The Secretary shall prepare a voting paper containing a list of the candidates, showing the offices for which they are respectfully seeking election or re-election, and shall send a copy of such voting paper to each member of the Society with the October number of the Magazine. Each member shall

make a cross (X) opposite the names of those for whom he desires to vote, and shall sign the voting paper at the foot, and send it to the Scrutineer in a sealed envelope, before the 14th of October. The Scrutineer shall prepare a written return of the officers elected, showing the number of the votes recorded for each candidate, and send it to the Secretary before the 21st of October, for publication in the November number of the Magazine. In the event of an equality of votes, the President shall have a casting vote.

7.—It shall be lawful for the Council to delegate any of their powers to a Committee of not less than three.

8.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit.

9.—The Council shall have power to expel any member from the Society at any time, without assigning any reason.

10.—All members intending to resign their membership at the end of the current year of the Society shall give notice of their intention to the Secretary before the 14th October, and all members who do not so give notice shall continue to be members for the year following, and shall be liable for their subscriptions accordingly.

11.—Neither the office of Scrutineer nor the office of Auditor shall be held for two consecutive years by the same person.

12.—The Scrutineer shall not reveal to any person how any member shall have voted.

13.—If any office shall become vacant at any time, other than at the end of the Society's year, the Council shall have power to nominate any member of the Society to fill the vacancy until the expiration of the then current year.

THE SOCIETY'S MEDAL.

The Medal is awarded to every member who succeeds in breeding any species of bird which has not previously been known to breed in captivity in this country. Any member wishing to obtain the Medal must send a detailed account to the Secretary within eight weeks from the date of hatching of the young, and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be independent of their parents. The decision of the Committee shall be final.

The Medal is struck in bronze, and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—Founded 1894." On the reverse is the following inscription: "Awarded to (*name of donee*) for rearing young of (*name of species*) a species not previously bred in captivity in the United Kingdom."

Members to whom Medals have been Awarded.

Mr. R. A. TODD, for breeding *Poephila acuticauda* in 1897.

Mr. GEORGE E. BOUSKILL, for breeding *Cyanorhamphus auriceps* in 1897.

Mr. E. G. B. MEADE-WALDO, for breeding *Excalfactoria chinensis* in 1898.

The Rev. C. D. FARRAR, for breeding *Lagonosticta minima* in 1898.

BALANCE SHEET FOR THE YEAR 1898-9.

O. E. CRESSWELL, *Treasurer.*

Audited and found correct,

WALTER SWAYSLAND, Auditor.

19/10/99.

NOTE.—From the above Statement it will be seen that there is a deficit from last year of £12 rs. 6d. This seems chiefly to have arisen from the cost of the Coloured Illustrations having exceeded considerably the original estimate. The amount necessary to cover this deficit has been advanced by the late Treasurer (O. H. CRESSWELL). It seems desirable that, if possible, the accounts of the coming year should not be confused with those of the past; if, therefore, any Members are kindly inclined to send small subscriptions towards the liquidation of the Debt they will be gladly received by the Treasurer (J. L. BOWHORN) with Subscriptions now due for the coming year.

THE
Avicultural Magazine,

BEING THE JOURNAL OF THE

AVICULTURAL SOCIETY.

VOL. VI.—NO. 61.

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NOVEMBER, 1899.

BREEDING RESULTS FOR 1899.

By D. SETH-SMITH, F.Z.S.

Although the past summer has been all that could be desired for breeding foreign birds out of doors, the spring was most trying, excessively cold nights being experienced in May and June. Several nests in my aviary produced nothing in the early part of the season; Parrot-finches nested early and sat well and most of the eggs were fertile, but for some unknown reason the birds left the nest a few days before the eggs were due to hatch, although no human being, at any rate, approached the nest.

A pair of Crimson-finches have behaved in much the same way, the only difference being that they have on one or two occasions actually hatched their eggs, but the young have perished at an early age. They sit very closely and defend their nest capitally.

A pair of Sydney Waxbills hatched two young birds early in the spring, which got on very nicely until they were beginning to be fledged when an extra cold night killed them.

Diamond Doves have not done so well with me this year as last. My old hen is quite blind in one eye and shews unmistakable signs of old age—so we must not expect too much from her. The first nest in May produced one young bird—a cock—which was successfully reared. A second nest in June likewise produced a single bird (hatched on the 19th) this time a hen, which was also reared all right. These two young birds were afterwards transferred to another compartment in which lived a solitary cock of the same species (one we reared last year) which had, throughout the spring, been cooing in vain for a mate. He immediately took possession of the young hen and I fear rather persecuted the other. On September 2nd, I noticed the last year's cock sitting upon a newly made nest, and, prompted by curiosity, drove him off and discovered a single egg. The same

evening the young hen (now 75 days old) was seen on the nest and the following morning it contained two eggs. This nest was, however, deserted before the eggs were due to hatch but one contained a young bird. Surely it is most unusual for a bird so young to breed? I have taken care not to let her nest again. The old pair of Diamond Doves hatched and reared a third young one in September.

A pair of Redrump Parrakeets have only reared one young bird—a male—now a very fine fellow. They were quite ready to commence breeding in February, but their present abode could not be got ready for them before May. They should do better next year if all goes well.

The Chinese Quails made a nest in the grass—a slight hollow in the ground scantily lined with hay—and the hen laid six eggs, all of which hatched on August 1st, incubation having lasted 19 or 20 days. The chicks when first hatched were remarkably pretty little things, striped dark brown and buff, and so tiny were they, and so fast did they run that they really reminded one more of large insects than of birds; indeed so small were they that I deemed it advisable to promptly remove a pair of Sacred Kingfishers (*Halcyon sancta*) to another compartment in case they should take them for some new kind of beetle, and swallow them whole. They were all successfully reared, chiefly upon fresh ants' cocoons and the large winged ants that are found in ants' nests, and of which they seemed particularly fond; they seemed rather afraid of the ordinary "worker" ants. Curiously enough these six little Quails which are now in full plumage have all turned out to be cocks. The old pair went to nest again, laying as before six eggs, two of which were accidentally broken before I had any idea of a second nest. Four chicks appeared on September 14th, but one of these somehow choked itself with a feather (I have it now, stuffed). The other three are now a nice size, but I cannot yet tell for certain to which sex they belong, but I believe they are hens. (a) Can it be that two clutches of eggs are usually produced in the season by this species, the first producing mostly males and the second females? It does not seem to be known for certain whether, in a wild state, the common Painted Quail breeds twice a year or only once. Mr. Hume, quoted in Mr. Ogilvie-Grant's "Handbook to the Game-birds," writes of this species: "I have reason to suspect that they may breed twice a year, but the matter is still doubtful, as the different periods at which we have found the

(a). They have turned out to be two hens and a cock.

nests may be due to difference in the climates of the localities in which we met with them."

On the 22nd of August, a pair of interesting little hybrids between a cock Indian Silver-bill and hen Dwarf-finch left the nest. They are at present much like their male parent, but have shorter heads and smaller bills. In colour, they somewhat resemble him, but are rather darker, and the upper tail-coverts, instead of being pure white, as in the Silver-bill, are yellowish brown. At the present time (October 7th) there is a second nest of hybrids from the same parents, and from the noise they make they appear to be getting on well. The Silver-bill feeds them most industriously.

A pair of Rufous-tailed Finches (*Bathilda ruficauda*) made a beautiful nest in the grass, composed of living grass cleverly woven into a dome, and lined with dry hay; but they devoured their eggs.

A pair of Long-tailed Grassfinches nested and laid plenty of eggs but without results, I think they must be both hens.

Besides the foregoing, we have reared a nest of five Cockatiels and have another brood of four in the nest; half-a-dozen Zebrafinches and three Bengalese complete the list of birds reared here this summer.

OUR TAWNY OWLS.

By Miss R. ALDERSON.

Some of the earliest and pleasantest of my avicultural recollections are those of the Tawny Owl.

Some years ago when staying at Scarborough, we saw a most beautiful specimen hanging in a parrot cage outside a dealer's shop. The bird looked so disdainfully miserable in its captivity that our youthful hearts were moved with pity, and for five shillings we became its owner. On enquiry of the dealer if he had any more, he disappeared in the shop and brought out a small blinking Owlet. How old it was I have no idea, but its head was covered with down and it had also a quantity on the wings. For seven and sixpence we bought the two birds and brought them home. They were both very tractable, and delighted in being petted, and especially for anyone to ruffle their hand in the deep feathers at the back of the neck. Both had enormous muscular power in their legs and to remove them from a perch, when they wished to stay there, was a matter of

great difficulty. We named the Owls Jimmy and Joey, though to this day I have no idea of the sex of either. We kept them for some years, but they never showed any inclination to nest. For food we gave them ox liver cut into small pieces, this was their staple diet, varied by scraps from dressing poultry or game, and any mice we could get. In default of the latter we gave them small pieces of rabbit skin, as some sort of fur seemed necessary to keep them in health and to enable them to regularly throw up large pellets. The Owls much preferred liver to raw beef, and sometimes when the supply of the former ran short and I used the latter as a substitute, their disgust at my conduct was most marked. Joey would stand beside the food-pot and scatter the offending substance right and left, hardly eating a single piece.

Some good friends of ours used to send us many dead mice, sometimes (when the stacks were thrashed) as many as seventy at once. This was indeed a red letter day for the Owls, and especially for Joey, for his besetting sin was decided greediness. I have often seen him swallow five or six very small furless mice in rapid succession. They were eaten without ceremony but in the case of larger mice the bones of the head were first broken in the Owl's mouth before being consumed—invariably disappearing head first. Often the tail of the mouse would hang out of the Owl's beak sometime after the rest of the body had disappeared. We often saw both birds drink, they were also very fond of bathing in a large bowl. Their manner of doing so was very curious and never varied. As they were very shy about being seen during the process, it was only by patient watching that I could observe them. The older bird always sat on the basin-edge and dipped his face several times very solemnly into the water before finally going into it. Once inside, he fluffed out his feathers to such an extent that no water was visible, and made a great splashing. Joey was far shyer in his ablutions. The bath seemed to have a terrifying fascination for him. He would draw up his feathers quite closely until his legs appeared a great length and then nervously run forward as if he were treading on hot bricks. He always reminded me of a child taking its first paddle, but having got fairly in the water he thoroughly enjoyed himself, and generally emerged looking a perfect scarecrow, with dripping feathers, when he would run very rapidly up and down a long perch to get dry.

Joey and I were always great friends, but when we had had him for some time an event occurred which effectually sealed his affection for me. One day I found he had broken his upper

mandible nearly in two. It was only held by a piece of skin, and to make matters worse the break was so high up in the beak that it was quite impossible for him to hold his food. I feared he would die of starvation, and, with very faint hopes, I cut up some raw meat very finely and after adding a small quantity of water, held it in a spoon to the side of his beak. To my delight he sucked the fluid in. I fed him every hour or so for days (fortunately the broken half of the beak could rest on the lower part) and eventually the injured portion knit together again quite firmly. It was not quite straight, but he could eat as well as ever, though he loved to be fed with a spoon long after it was quite unnecessary. Joey was intensely grateful, and when he caught sight of me down the garden, even at some distance off, he would start calling *twee ! twee!* very loudly.

We kept the Owls for some years, and then Jimmy (who had never been so contented as the younger bird) began to grow restless. One day he flew at my face, but instinctively putting up my hand I only received a few claw marks. After this we thought it was perhaps kinder to give him his liberty, and as Joey would have been very lonely by himself we decided to let both of them go. We took them in a hamper into Clumber Park, and in a beautiful woodland glade opened the hamper lid, and then retired some distance off to watch the result. Jimmy was off at once, but Joey bade us a long adieu. I felt a strong inclination to run forward and shut the lid and take him home again—but I refrained, and so ended my only experience of Tawny Owls.

THE NESTING OF THE BEARDED SEED-EATER AND OTHER BIRDS.

By Miss GRACE ASHFORD.

Last autumn, I purchased, what I understood to be, a pair of Green Singing Finches, but what I now judge to be, from Dr. Butler's description, "Bearded Seed-eaters."

As time went on they both sang loudly and continuously, there was just a shade of difference in size but none in colouring or song (since May, the colouring of the male is much brighter). I made up my mind they were two males, and turned them into the aviary, which is an outdoor, unheated one, with a hen Canary and a hen Green Singing-finch; these four with a pair of Pekin Robins and an Orange Bishop, out of colour, spent the

winter together, and the Seed-eaters could be heard for a considerable distance, so loudly did they sing.

The end of April, the smaller of the two laid several eggs on the sand and one in the canary seed pan on the floor, on which she sat. I removed the egg, but she still sat on. I placed comfortable nests within reach, but she would not leave the seed pan. I left home for a fortnight in May, and on my return she was still sitting in the seed, and had not laid any more eggs.

Noticing that the male was feeding her, I took away all seed vessels from the ground, and they then set to work house-hunting in earnest.

On June 26th, the Seed-eaters took possession of a nest built by Waxbills, lowered the roof and flattened out the lower part; it was rather tip-tilted but looked safe; that night the hen slept in the nest; on the 30th, she was sitting on four eggs, and on July 13th, hatched two young ones.

On the 15th, I was away all day and on my return found the young ones forsaken and dead.

On the 25th, she was again sitting on four eggs, and on August 6th, she hatched one chick; this, two days after fell or was thrown from the nest, I replaced it and it was fed, but in the evening it had disappeared, and I could not find even the cold remains.

I then pulled out the unsafe nest and hung in its place a roomy box.

On the 15th, she had again laid four eggs; these came to nothing, and to-day, September 18th, she is busy with the nest again.

I never saw the male feed the young, but he constantly fed the hen both on and off the nest, and they have never quarrelled.

They are very tame and interesting, and I should be glad to know if any member has had a similar experience, I cannot say where the fault lies that none of the young were reared.

Now may I go back to June 27th, and the hen Canary referred to; she, on that day, began to sit on three eggs in an open nest high up in the aviary, which she had built of hay and grass. I had thought of removing her, but concluded she might be of use as foster-mother so she was allowed to remain. While she was sitting, a young White-throated Finch (that I bought in his nest-feathers, not knowing what he might be) fed her, and defended her and her nest from the interference of others with

great spirit; the eggs were clear. She at once made another nest in a box over the door; I let her sit her time, and on the fifteenth day (July 28th) took down the nest for the purpose of throwing away the eggs, I was astonished to find two strong young ones, these were reared, both birds feeding them, and on August 11th they left the nest; one is now singing. They look much like green Canaries of a bronze tint, one has white feathers in the tail, shape and markings of wings and tails somewhat like the White-throat, upper mandibles darker than lower, legs and feet light horn colour. I suppose when they moult their nest-feathers they may alter. The White-throat continued to feed the young till they could feed themselves.

I have had little success this summer; the intense heat, tho' suiting the birds well, seemed to dry up the eggs.

Cordon-bleus, a lovely pair, have nested three times: result eggs only.

Silverbills (African) ditto, owing, I believe, to my having kept the young of last year as well as their parents; I have been so successful with them hitherto.

Zebra-finches, for the same reason, have only reared some half-dozen youngsters.

Bronze Mannikins, one young one died when a week old.

A Striated-finch mated with two Bengalese, a brown and white and a fawn and white, all three incubated and fed the young, there are seven of them. They are in build like the Striated-finch but much lighter in colour, some with light throats and a few white marks.

The greatest disappointment I have had this year, was to find a fine young Golden-breasted Waxbill dead in the nest. On Thursday night it was strong and noisy, on Friday morning early, I noticed the little parents in trouble, and on taking down the nest box there was one dead bird and one egg, no doubt the parents had been driven out of the nest in the night by mice and the youngster died of cold; its crop was full, flights half out of their sheaths, eyes just open, breast-feathers showing. A destroyed Zebra-finches' nest with young thrown out, and a Grey Waxbills' nest with eggs containing young which had been gnawed, told the same tale, also a hole in the border of earth in which the shrubs are planted.

Among my most perfect birds that have been out since May, are Lavender-finches with coats like satin, Golden-breasted Waxbills, Jacarini, Reddish, Guttural, Aurora, Cherry-finches and a male African Fire-finch.

Parson-finches, also most charming birds, have nested freely, but have not produced any young.

I can say with truth that, out of sixty birds in my small aviary, there is not one really quarrelsome.

CHAFFINCH NESTING IN CAPTIVITY.

(*Fringilla cælebs*).

By W. T. PAGE, F.Z.S.

The birds, both male and female, were trapped three years ago in the garden, and have been undisturbed in their present quarters ever since; as regards the male he was caught just after the first moult, and was in possession of the light grey mark on the head (common to all) running longitudinally from the centre of the crown to the base of the neck, which he did not lose till after the third moult, and was then in splendid trim with brilliant and perfect markings.

By the way, do Chaffinches breed in a state of nature before they lose the aforementioned marks? (*a*). It appears to me that they are not fully adult till after the third moult, when these marks are lost and they are in full adult plumage, when they would be between two and three years old; this I cannot confirm, but I know this, my male totally ignored the hen till that time, though she courted his notice, built each year, and laid several clutches of infertile eggs.

Before passing to the actual fact, I would like to say that though the swooping flights and violent courtships, common to them were indulged in, so much so, that by the time they were fully paired both bore marks of the conflict they had been through, yet there were no attempts at copulation in the air (though they had the space); it took place sometimes on the ground, but most often in the branches; this was always followed by a sort of gurgling rattle on the part of the male, also occasionally indulged in when chasing the hen; for myself I do not believe the Chaffinch ever copulates in the air. (*b*).

Now for the nesting. Immediately they were paired, the hen began to build in an earthenware nest-bowl hung close against the roof, the male gave her but little assistance, carrying a few straws during the whole of the process; materials used were fresh grass, hay, groundsel stems and down, and a few feathers; four eggs were laid of the usual type; incubation

(*a*). They certainly do. (*b*). They do not.—E. G. B. M.-W.

lasted fourteen days, the cock taking no part in this, but he assiduously fed the hen on the nest. By the time the fourteen days expired but one egg remained (I think my Pekin Robins were the robbers), this was successfully hatched, the youngster being very strong and lusty and did well for the first three days, then all went wrong; they tried hard to feed it with mealworms but failed, and though I promptly sent off for some gentles, there was some delay in transit and they arrived too late to save the fledgeling, which died during the morning of the fourth day.

I am hoping for complete success next year, as I shall be able to profit by the experience of this, and get a supply of small insects ready in time.

I also noted that though the Chaffinches ordinarily took freely both of the usual soft food and ants' cocoons always in the aviary, after the youngster was hatched they touched neither for sometime, though now they are eating both freely.

The fledgling was blind for two days; it was covered with longish yellow hairs; its skin, flesh-colour with dark bluish patches on the head and wings.

I should say, in conclusion, they have about forty companions—Waxbills and Finches, and a pair of Cockatiels; had they been alone perhaps they would have successfully reared the nestling.

CORDONS BLEUS.

By MRS. BARBER.

Since I started keeping birds, about two years ago, I have generally had one Cordon-bleu, at least, and at present there are three (one cock and two hens) in a compartment of my bird-room, with about forty of the smaller Finches and Waxbills.

One hen I have had about eighteen months; she is very tame and sings very prettily. When I turned my birds from their cages into the bird-room, I bought a male Cordon-bleu, and put him in with the hens. In two days he was dead. I got another (a fine healthy-looking little fellow) and the next morning I saw him moping in a corner all "fluffed out." I knew what *that* meant, so I watched to see if I could find out the cause of it. Almost immediately the two little hens flew down and danced all round him, pecking and calling him, and finally drove him all over the aviary; so I caught the poor little thing and caged him, but he died very shortly.

A few days later I introduced a third male (after having caught my little "singing" hen and put her in a cage). When the

remaining hen saw the new arrival she promptly "went for him," but he did not allow himself to be bullied and kept "the lady" in her place. After a week I put back the second hen, when the cock started making advances to her almost directly, and those two seemed to think they might start a nest.

About 3ft. off the floor, I had hung a small box in which my only pair of African Fire-finches had built a nest, and the hen had laid four eggs and started to sit. What must that pair of Cordons do, but decide upon *that* box for their nest, and there was a great scrimmage, but the Fire-finches were driven out by the Cordons who did not even go into the box, but stayed close by all day and defied the owners to return. Towards evening the Fire-finches started carrying hay into a straw basket-nest a little higher up, but it was no use, the Cordons kept them out of that too. I tried to catch the offending pair, but they were so quick and it frightened the other birds so, I let them be, but very easily caught the Fire-finches and transferred them and their basket to a large cage, where they built a nest; the hen laid nine eggs but would not sit, and the other morning I found her dead—egg bound.

To return to the Cordons, they have not yet decided which box or basket they will have.

My small experience of these pretty little birds is that they are quite capable of holding their own (especially the hens) with birds of their own size and a little larger. The "singing" hen, the other morning, saw the cock Bearded Tit take a meal worm from the dish; up she hops, seizes the other end of the worm and pulls; the Tit also pulls, and the poor mealworm comes in half, and off go both the birds, each (I am sure) thinking the other defeated.

NOTE.—With reference to the delicacy or otherwise of the Cordon-bleu, my experience is that there is great difference in different specimens. I have a cock which for seven and a half years has never ailed, but which has lost eight wives in succession.—EDITOR.

THE INDIAN GOOSANDER.

From the Proceedings, Asiatic Society of Bengal, for March, 1898.

Mr. Frank Finn, Deputy Superintendent of the Indian Museum, exhibited a living specimen of the Indian Goosander (*Merganser comatus*), and read the following note on its walking powers.

The specimen of the Indian Goosander (*Merganser comatus* Salvadori) which I have the honour of exhibiting to-night has been very kindly lent to me for the purpose by Mr. W. Rutledge,

of Entally, who tells me that this is the only specimen of the bird he has ever received in the course of his long and extensive experience as a dealer in living animals.

The bird being so rare in captivity, I have thought it worth while to point out, by means of this specimen, that Mr. Hume was mistaken in thinking that the species is unable to walk. He says (Game Birds and Wildfowl of India, Vol. III. p. 301): "On land one only sees them resting near the water's edge, and when disturbed they shuffle on their breasts into the river. I do not think that they can walk at all. Anyhow, I have always seen them just half-glide, half-wriggle, breast foremost, and I think touching the rock, into the water." (c)

But from the actions of the bird now exhibited, it is easy to see that the Goosander can walk like other ducks, and does so in the same attitude as they, though it is not so active on land as the less aquatic species. No doubt the birds seen by Mr. Hume were simply disinclined to stand up and walk properly when they had but a very short distance to go, and preferred the lazier method of locomotion he describes in the passage above quoted.

REVIEW.

Bird Life in an Arctic Spring.

This is a small book, containing the diaries of the late Mr. Dan Meinertzhagen, a member of this Society, and Mr. R. P. Hornby, on a bird-collecting expedition in Finland. The diaries have been reprinted just as they were written, day by day, on the northern fells, and, if they lack the polish of notes written for publication, it is more than compensated for by the freshness of the narrative, which enables the reader to enter into all the the authors' hopes and disappointments as though they were fellow-travellers.

The latter portion of the book gives a short account of the live eagles kept by the author, and is illustrated with numerous photographs and drawings, many of them from the living birds. The book, which was, originally, only intended for private circulation, and of which a very limited edition has been printed, is published by R. H. Porter, of 7, Prince's Street, Cavandish Square.

(c). The bird was here put down on the floor and made to walk about, which it did in the ordinary manner of ducks, though unwillingly, having probably not recovered condition after a long journey from the Hills. A specimen of the allied *Merganser castor* not distinguished from the present species by Hume, who calls both *Mergus merganser* op. cit.) which I saw last year in the London Zoological Gardens constantly walked about quite freely, as did some Smews (*Mergus albellus*) observed at the same time and place.

NOTES FROM THE ZOO.

By J. LEWIS BONHOTE.

It is proposed to give, month by month, a list of the new bird arrivals at the Zoological Society's Gardens in Regent's Park, together with a few notes on any that may call for attention. These notes are written mainly for those aviculturists whose time in London may be limited, that they may be able to see what is of most interest to them in a minimum of time.

I.

ARRIVALS DURING SEPTEMBER.

Sept.	1	1	Stone Curlew— <i>Edicnemus scolopax</i> Oxfordshire.	Western Aviary.
„	6	2	One-wattled Cassowaries— <i>Casuarus uniappendiculatus</i> New Guinea.	Reception Paddocks.
„	7	2	Regent Birds— <i>Sericulus melinus</i> Australia.	Parrot House.
		1	Blue-necked Cassowary— <i>Casuarus intensus</i> New Guinea.	Reception Paddocks.
		1	Ring-necked Parrakeet— <i>Paleornis torquata</i> India.	Parrot House.
		1	Leadbeater's Cockatoo— <i>Cacatua leadbeateri</i> Australia.	Parrot House.
„	8	1	Laughing Kingfisher— <i>Dacelo gigantea</i> Australia.	Western Aviary.
„	11	1	Fulmar— <i>Fulmarus glacialis</i> Iceland.	Eastern Aviary.
„	15	1	Lapwing— <i>Vanellus cristatus</i> British Isles.	Fish House.
		1	Herring Gull— <i>Larus argentatus</i> British Isles.	Gull Ponds.
		1	Vulturine Eagle— <i>Aquila verreauxi juv</i> S. Africa.	Eastern Aviary.
„	21	1	Black-backed Kaleege— <i>Euplocamus melanonotus</i> India.	Pheasantry.
		2	Somerats Jungle Fowls— <i>Gallus sonnerati</i> India.	Pheasantry.
		1	Wood Francolin	India. Western Aviary.
„	22	1	Maroon Oriole— <i>Oriolus traillii</i> India.	Parrot House.
		1	Ruppell's Parrot— <i>Psecephalus rueppelli</i> W. Africa.	Parrot House.
„	26	1	Black-necked Swan— <i>Cygnus nigricollis</i> Antarctic America,	3 Islands Pond.
		1	Hoopoe— <i>Upupa epops</i> Europe.	Western Aviary.
		2	Common Sandpipers— <i>Tringoides hypoleucus</i> Europe.	Western Aviary.
„	28		Westerman Eclectus— <i>Eclectus westermanni</i> Moluccas.	Parrot House.
		1	Rufous Cinnamon— <i>Rhynchotus rufescens</i> Brazil.	Western Aviary.
„	29	5	Barbary Turtle Doves— <i>Turtur risorius</i> Africa.	Brush Turkeys' Enclosure.

Sept. 30 2 Lanceolated Jays—*Garrulus lanceolatus*

Hymalayas.

Western Aviary.

1 Eclectus—*Eclectus* (sp. inc.)

Parrot House.

Among the new arrivals, the Maroon Oriole is, perhaps, the scarcest and least known; it is now to be found in the Western Aviary, and is a very disappointing bird to view, being of a sombre brown, the edges of the breast-feathers edged with white, and the vent and under tail-coverts, yellow. Although rather wild, it seemed in splendid health and well accustomed to its new quarters. In the same aviary was a Hoopoe, a splendid bird and remarkably tame. These birds would, I think, form excellent aviary birds, and I wonder they are not more widely kept. I looked in vain for the new Eclectus in the Parrot House, but fancy they must have been placed 'behind the scenes.' The Parrot House, to those who can put up with the noise and heat, is well worth a visit; for apart from a very good collection of Parrots and Parrakeets, many in perfect condition, there are several very fine Toucans, especially a Toco Toucan (*Ramphastos toco*) which is as fine a bird as it has ever been my lot to see in captivity. The recently-arrived specimen of the Regent Bird is also there, but it is a dull coloured bird, though in the best of health and condition.

There were several Tanagers and Honey-eaters. The former crowded together in Parrot Cages, in which it would be impossible for any bird to do itself justice. The latter were, however, rather better treated, and the best of these were a pair of Yellow-tufted Honey-eaters (*Phornis auricornis*) in dark green plumage, with gorgeous yellow gorget.

In the Western Aviary are a nice collection of Doves, including all the kinds usually kept in confinement. A splendid specimen of the Long-tailed Glossy Starling (*Lamprotornis caesus*) a bird closely allied to the Green Glossy Starling, but having a tail like a Whydah Bird, shared an aviary with a Sun Bittern and two beautiful Australian Rails (*Rallus pectoralis*); next door to them might be seen a nice collection of British Shore Birds, and several species of Whydahs and Weavers. The Crows' Cages well repay a visit, most of the birds being clean-moulted and in good trim. The Australian Piping Crow will always whistle a tune, and, if you are not careful, a Magpie will shake your hand in rather a forcible manner.

Among the larger birds the King Penguin, near the Lion House, should not be missed ; it is a bird from Antarctic Seas, very rarely seen in confinement, and it is at present in very good condition.

CORRESPONDENCE.

ASSUMPTION OF BREEDING PLUMAGE BY THE WEAVERS.

SIR,—*Re* Mr. Todd's remarks on the assumption of breeding plumage by the Orange Bishops, for some time I studied my Weavers with the pre-conceived notion that it was brought about by a growth of colour in the feathers, and so, for a time, I missed the mark.

Before going into full detail, I wish to wait for another season's observations; but I have got so far that I may state definitely (in confirmation of Mr. Todd's remark) that while none of the wing feathers are moulted, save a few of the large flights, the whole of the head, neck, and breast feathers are imperceptibly shed, and new feathers produced. This is common to all the Bishops, and they have only to be caught while the change is taking place, to establish the fact beyond doubt. Again, their demeanour during the change is the same as during the moult, and they may be observed helping nature by removing some of the feathers themselves.

W. T. PAGE, F.Z.S.

CROSSING OF ZEBRA FINCH AND ST. HELENA WAXBILL.

SIR,—I think it may interest the readers of the *Avicultural Magazine* to hear that, in my aviary, a cock Zebra Finch and hen St. Helena Waxbill have been nesting together, and have brought up two healthy young birds, who are now fully fledged and flying about the aviary.

At present they have no distinctive plumage; they are grey-brown all over, and their tails are short—but they have a way of wagging them which reminds me of a St. Helena. Their beaks (which are still brown) are like Zebra Finches; their feet and legs, like St. Helenas'.

I should be much interested to hear whether you have ever heard of such a cross before.

ORLEYN HODGSON.

SEXES OF PENNANTS.

SIR,—I can assure Dr. Butler that my hen Pennants are identical with Mr. Farrar's and Mr. Grace's; and, notwithstanding what he asserts to the contrary, I still believe them to be typical birds of *Platyercus elegans*.

Since my last note, I have disposed of one of my hens to a lady member of the Society, who, in a letter acknowledging the safe arrival of the birds, says, "Mrs. M. notices that she has got the green tail feathers about which so much has been written in the *Avicultural Magazine*."

F. W. OATES.

SIR,—It is hardly likely that neither Mr. Farrar nor Mr. Oates know a Pennant from an Adelaide Parrakeet; and, on the other hand, Dr. Butler and Mr. Fillmer tell us that undoubted female skins in the British Museum have blue tail feathers; and Mr. Cocksedge's and Mrs. Lancaster's evidence is still more convincing—especially Mrs. Lancaster's, because the bird has died during the controversy, and dissection has settled the question of sex.

Is it not possible that there are two varieties of Pennant? According to the Museum Catalogue, Dr. Butler's idea that the hen is an Adelaide will not help us, because it says the tail of the Adelaide is the same as the Pennant.

F. G. DUTTON.

SIR,—Allow me a few lines in answer to Mr. Astley. He says, “Do not all young Australian Parrakeets resemble for the most part the adult female when they leave the nest?” I say, certainly of four sorts, emphatically, No.

Young Redrumps show the cock and hen plumage at once, so do Mealy Rosellas, so do Pennants, and so do Crimsonwings. In my nest of young Crimsonwings there were two cocks and one hen, just as distinct in the red of the wing as any adult, though only a month old.

C. D. FARRAR.

SIR,—I say once more in the most emphatic manner that my birds are Pennants and nothing else; and anybody that likes may see them. What more can I say?

It is very difficult to describe the colour of a bird, in *writing*; and some of the writers have wilfully exaggerated and distorted the difference in colour I spoke of—so much so, that they actually want to make out that I have two separate breeds, a Pennant and an Adelaide. It would be about as sensible to say that I have a cock Pennant and a hen Mealy Rosella, for the difference is no greater than between a cock Pennant and a hen Adelaide.

With regard to Mr. Fillmer's remark that I wrote *black* in my first article, it was doubtless a misprint for blue owing to my bad writing. I no doubt wrote “blue,” but the poor printer read it into “black.”

C. D. FARRAR.

NOTE.—The above is only the end of a long letter from Mr. Farrar, the former part of which we regretfully suppress, because it seems to us unnecessarily personal.—Ed.

SIR,—Mr. Fillmer, for some reason best known to himself, persists in speaking as though I had only *one* hen Pennant. Now he knows perfectly well from my Notes that I must have two at least. As a matter of fact I had three, but sold one to Mr. Oates.

Mr. Oates has two. Mr. Grace has one. He had three, but sold two of them.

All these birds were absolutely identical in colour and plumage with my No. 2, the mother of the young ones. No. 1 was rather more orangy-red in colour.

How many hen Pennants does Mr. Fillmer require to be convinced of identity of species? Does he fondly imagine that Adelaides are so abundant, that silly dealers sell them to the unsuspecting ones as hen Pennants? Fond delusion! Ask Mr. Abrahams! I wish I could light on five Adelaides on such easy terms.

Mr. Fillmer says, “We admitted that Mr. Farrar's *female* (observe the singular number) is a true example, etc.”—he is as far off as ever from proving that *all* females differ from the male as his does.

Now I have produced six common hen Pennants, not one; all exactly like my No. 2, except the first I wrote about, which was rather more *orangy-red* in *her* colour, and yet I am calmly told they are Adelaides.

I leave it to our readers if I have not proved my case up to the hilt against Mr. Fillmer and Dr. Butler. The six birds are common hen Pennants, and the offspring of my pair are common or garden Pennants, and not Mongrel Pennant Adelaides.

C. D. FARRAR.

A NEW WEAVER-BIRD.

SIR,—I thought the present extract might interest the readers of the *Avicultural Magazine*, since the new species therein described, if ever it comes into the market, would be well worthy the attention of those who are fond of large seed-eaters.

From the Proceedings, Asiatic Society of Bengal for July, 1899.

“Mr. F. Finn exhibited two living specimens of a new Indian species of Weaver-bird, and made the following remarks upon them:—

“The birds I am exhibiting to-night were obtained about the end of June from Mr. W. Rutledge, of Entally, who states that he received them, together with a specimen of the Blue Rock Thrush (*Petrophila cyanus*) recently, from Naini Tal. The man from whom he procured the birds stated that he could get others, so that the species is probably not uncommon. I have no hesitation in describing it as new, as it differs markedly from any of our Indian Weavers, and does not agree either with the description of any of the allied African forms to which I have access. I have much pleasure in naming this handsome novelty after Mr. Rutledge, whose services to Indian Natural History, and to the Museum and Zoological Gardens in particular, are so well known; and I characterize it as follows:—*Ploceus rufledgii*, sp. nov.

“Very similar to the male of *Ploceus baya* in breeding-plumage, but easily distinguishable by its larger size, and entirely yellow under surface.

“Both specimens have the same colouration and are of about the same size, but as one has a stouter head and is brighter than the other, and constantly sings (*d*), it is possible that they are male and female and that the sexes will prove to be similar in this species. A full description, with a coloured plate, will hereafter appear in this Journal.” F. FINN.

ENQUIRY.

SIR,—I should be very much obliged if some member will tell me if the following birds can be safely wintered in a rather cold outdoor aviary, facing S. E., and only sheltered by glass shutters on the N. W.; the inner part is open to the front, but has a deep roof with perches and nest-boxes.

The following are the birds—Bleeding-heart Doves, Rosey Pastor, Nonpareil, Indigo Finch, Green Singing Finches, Mannikins, Grey Javas, Weavers, Painted Quail (one hen), hen Virginian Nightingale.

Can you tell me if it is possible to secure a Rosey Pastor hen, and if they ever breed in captivity? (Mrs.) A. C. CHARRINGTON.

The following reply has been sent to Mrs. Charrington—

I am not quite sure about the Rose-coloured Pastors, but, as Starlings are generally hardy birds, I should not be afraid to try it.

All the others have certainly been kept out of doors throughout the year by more than one aviculturist; I have kept them all myself in quite cold aviaries.

At the Berlin Zoological Gardens, a pair of Rosey Pastors went to nest in 1893, and would probably have reared a brood if rats had not destroyed the young. It is probable that Messrs. Abrahams or Jamrach would be able to get a hen for you.

A. G. BUTLER.

(*d*) It also displays weaving proclivities and frequently drives its companion about, though not in a hostile manner. Some species of the Yellow African Weavers have the sexes similar or nearly so, though this is not the case with any Indian species.—F. F.

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DECEMBER, 1899.

PASSERINE DOVES.

(*Chamæpelis passerina.*)

By A. SAVAGE.

I think I am right in saying these pretty little Doves have only been mentioned once in the Magazine—February, this year, in “Notes on My Doves in 1898,” by Mr. Cresswell—and this single mention induced me to send a few notes on a pair I purchased, a few months ago, from one of our (two) bird-dealers in Rouen. When at home, I pay frequent visits to these shops, on the look out for new arrivals, and I found, one day, the dealer in question had eight of these tiny Doves in a small cage, just arrived from Havre. This was the first time I had seen the species offered for sale, and, in fact, the first time I had ever seen the Dove anywhere; and being struck with their prettiness and miniature size, I immediately purchased a pair(*a*). They were in bad condition as regards plumage; their wings had been cropped quite close, so flying was altogether out of the question; and many of their tail feathers were broken. Mr. Cresswell says, in the above mentioned article, “They are terribly difficult to import from their extreme timidity. Over and over again cages of them have been shipped for England, but none ever arrived alive. They absolutely batter themselves to pieces.” The man who shipped those that my pair came from may have been aware of the difficulty, and it may be the explanation why they were shipped with wings cropped as closely as they could be cropped—to reduce their movements and fluttering in the cage in which they were packed, and their chances of self-destruction, during the voyage over, to a minimum (*b*).

(*a*) The remaining six were disposed of shortly afterwards, *i.e.* two pairs sold, and the last couple eventually put into a cage with a pair of *Lophotes*. The latter very soon killed them, it appears—as was to be expected; and they were allowed to do so by the dealer!—A. S.

(*b*) I bought a pair in July of the present year; the female could fly, but the male had to be placed in a cage, where it has entirely recovered its plumage. This trick of throwing the tail upright is very peculiar.—A. G. B.

As soon as I got my pair home, I removed all the cut and broken feathers, and put them in a good sized aviary containing some foreign finches. In a few weeks their new feathers had grown, and they could fly quite well. During the time they were unable to do so, I was at home, and had a good opportunity of watching their movements on the ground. When not hiding in a snug corner I made for them, lined with hay for warmth at night and for sleeping purposes, behind a bundle of pea-sticks, they were running very quickly about the aviary, bobbing up their tails "Blackbird fashion," picking up tit-bits on the floor and visiting the seed-dish (containing white millet and canary seed) and uttering now and then a little *coo*. They have been shy and timid birds from the first, and still are; trying yet to get out of sight as soon as approached. Since they have regained their powers of flight, they have abandoned their sleeping corner on the ground, and spend nearly all their time on the top of a box and branch that shelters it, fixed up close against the ceiling of the aviary. I have put a wicker nest, basin shape, lined with a little nesting material, in the box, and have also made a nest in the pea-sticks close by, hoping they will eventually adopt one or the other and breed. So far they seem much too timid to do so; but when they get more accustomed to aviary-life their timidity may leave them and the chances of breeding be greater.

With regard to plumage, they resemble in several respects the Bronze-winged Pigeon (*Phaps chalcoptera*). They have bronze spots on the wings as this Dove has, and also salmon-coloured feathers under the wings, visible when flying. The neck has very pretty mottled markings. The sexes are much alike in plumage, but there is a difference in the tint—the cock vinaceous and the hen ashen—this seems to be the distinctive mark between the sexes, and, if correct, five out of the eight I saw were cocks.

The only note I have heard from my pair is a little *coo*, uttered when one bird is alone and calling the other, or when they are startled and are about to fly off to some secluded part of the aviary. They seem exceedingly fond of each other and are scarcely ever seen apart; they feed together, fly together, sleep together and are, in fact, inseparable.

I do not know if any English aviculturist has been successful in breeding this pretty little Dove, but they have been bred in France, and in Germany (by Russ) too.

Perhaps the following list of doves I have seen offered for sale this year in France may interest our readers.

La Colombe	Passerine	..	..	<i>Chamaepelia passerina.</i>
„	à Masque de Fer	..	..	<i>Ena capensis.</i>
„	Diamant	..	..	<i>Geopelia cuneata.</i>
„	Tranquille	..	..	„ <i>placida.</i>
„	Zébrée..	..	..	„ <i>striata.</i>
„	Maillée	..	..	<i>Turtur senegalensis.</i>
„	des Seychelles	..	..	<i>Columba seychellensis.</i>
„	Poignardée	..	..	<i>Phlogœnas cruentata.</i>
„	Turvert	..	..	<i>Chalcophaps indica.</i>
„	Lophotes	..	..	<i>Ocyphaps lophotès.</i>
„	Marquetée	..	..	<i>Geophaps scripta.</i>
„	Lumachelle	..	..	<i>Phaps chalcoptera.</i>
„	Grivelée	..	..	<i>Leucosarcia picta.</i>
„	des Neiges	..	..	<i>Columba nivea.</i>
„	des Nicobar	..	..	<i>Calœnas nicobarica.</i>
„	Zénaïde tachetée	}		(Which is, probably, one
„	Zélande tachetée			
				and the same Dove).

I think I have seen la Colombe Pygmée (*Columba minuta*) offered once this year, too, but not being able to put my hand on the advertisement just now, I do not affirm it.

THE BLACK CASSIQUE.

(*Cassidix oryzivora.*)

By REGINALD PHILLIPPS.

From time to time one meets with an attractive looking bird which one would like to purchase; but the thought that the beguiling stranger may work havoc amongst the other inmates of the aviary makes one pause. If an account of the species can be found in any book, one reads it greedily; but if no such book be within one's reach, or if the book utter an erroneous or uncertain sound, serious consequences may ensue, and grievous wrong may be inflicted, to say nothing of a possible waste of a substantial sum of money.

On 26th February, 1898, I gave a heavy sum for a Black Cassique, and introduced a viper into the bosom of my family, just because there was not any friendly book to warn me. Since that date, in the *Avicultural Magazine*, in the *Feathered World*, and in *Foreign Bird Keeping*, there have appeared accounts of a specimen which was in the possession of one of our members, who had found it "very peaceful towards other birds." The following gruesome tale, however, will exemplify the truth of the old saying that there are two sides to every question—even to

the character of *Cassidix oryzivora*, and may possibly be the means of saving some fellow aviculturist from the sorrow and loss that befell me.

At page 100 of vol. iv. of our Magazine, under its Dutch name of Zwarte Kivispaal, I briefly referred to my first meeting with this species. In general beauty, especially as regards the development of the neck-feathers, this specimen was superior to either Mr. Russell Humphry's or my own—*possibly* because it may have been an older bird, *probably* because it was kept, as a tropical bird should be kept, in a warm, well-sheltered place.

The sight of Mr. Russell Humphry's Black Cassique at the Palace Show of February, 1898, had so stirred up my recollection of the admiration with which I had beheld the Amsterdam specimen that, on a fine healthy male being offered to me on the day already mentioned, being ignorant of its evil nature, and having no means of learning about it, I purchased the bird, and considered myself a happy man. It came from a long way up the Amazon—so I was told, and probably with a measure of truth, judging from independent evidence obtained through other sources. It was still in its foreign-made travelling cage, and its wings were cut.

For several weeks I kept my new acquisition in a six-foot cage in my dining-room. There were some little finches in the room, which were often let out for a fly; and I noticed with concern that he kept the closest watch on the movements of these little things, darting at any that might chance to come near his cage, and, terrier like, betraying the greatest eagerness to help me whenever I was driving them home or trying to catch them. However, when the April Magazine came out, and I read Mr. Russell Humphry's account of his specimen, I was greatly comforted, and concluded that my bird's excitement was only his "play."

While in this room, the bird's feathers were steadily growing, and about the middle of April he could fly sufficiently to be transferred to the birdroom with garden aviary attached. Here he was very gallant, making love promiscuously to several female birds of various species; but the males for the most part he pursued with such determination that I could not help feeling a little uncomfortable notwithstanding Mr. Russell Humphry's experiences. When I was in the aviary, he was quite an exemplary character; but why, when I was out of sight, did he pursue the birds, especially some of the Parrakeets, with such relentless earnestness, and why did the birds generally regard

him with such suspicion, if he were truly "very peaceful towards other birds"? and, as he became more powerful on the wing, I became more and more alarmed. But it was the old old story.—He was a grand bird and I was unwilling to part with him, and consequently unwilling to think any evil of him. Besides, he fed largely on seed; and, in addition to all this, I had talked the matter over with an "authority," who had assured me that none of the Cassiques are "rapacious."

In the "Royal Natural History," there is a reproduction of an illustration of a Crested Cassique busily working at the skull of a mouse, a pursuit which did not seem to me to be quite consistent with the above assurance—but then many illustrations are drawn with the view to pleasing the eye rather than of illustrating facts. With this picture in mind, my feelings may be imagined when, one morning, I picked up a mouse in the birdroom which had had the back of its skull neatly opened and its brains abstracted, but was otherwise untouched. This was a warning I had no right to have disregarded, for no bird but the Cassique could have dealt with the mouse in this fashion. I seem to have been infatuated; but, then, how about Mr. Russell Humphry's peaceable bird, and the "authority!" It is a bad quality in a man to be wanting in faith—excepting perhaps when he happens to be an aviculturist.

I have already stated that the Cassique made love to any female, and hunted only the male birds in my aviary. All the males were very strong on the wing, and the females also for the most part, but there was one exception. I had a female Orange-flanked Parrakeet, who had come to me with cut wings; she was now well on in her moult, but had not yet obtained full powers of flight. She was a great pet of mine; and she always looked to me to protect her from her stronger companions: her trustfulness in my care especially endeared her to me.

One day I had been out for a few hours, and, on returning, went into the birdroom to have a look round. There was a scared look about the birds, and instinctively I felt there was something wrong. I gave one or two calls to reassure them, still looking sharply about, when, from underneath one of the houses, I saw something crawling towards me. For the moment I could not make out what it was:—alas, it was my poor little Orange Flank, who, hearing my voice, blind, with tottering steps, was coming to me with a mute but ghastly appeal for help. At no time does a man feel his insignificance so completely as when the dying appeal for help. He yearns to help but is

absolutely helpless. All that I could do for the poor little thing was to crush out the last remnants of its hapless life. The Cassique, in endeavouring to pierce the skull and get at the brain, had gouged away every atom of skin and flesh from the entire head and face to half way down the neck.

Within forty-eight hours the Black Cassique was an inmate of the Western Aviaries of the London Zoological Society.

When offering him to the Society, I had warned them that he was a dangerous bird; and when the attendant came for him I spoke on this point. But the attendant was light-hearted: they were going to place him with (I think) the Jay-Thrushes, who would know what to do with him should he venture to meddle with them.

On August 10th (1898) I asked the keeper how the Cassique was getting on. His tone was not very jubilant. He had tried the Cassique with this bird and with that, and with a like result—the Cassique *went* for them all. However, he (the keeper) was happy now; he had placed him, as a last resource, with the Laughing Jackasses (*Dacelo gigas*), and he wouldn't interfere with them. I fear I forgot the Cassique for a while, but this last June, being at the Western Aviaries, I again inquired after him. With an ominous shake of the head, the keeper had to confess that at last he had taken to go for the Jackasses, and he had been obliged to shut him up by himself.

On September 6th, I found the Cassique loose again, and this time in company with Mr. Russell Humphry's bird. Both were on the ground, the latter apparently on its last legs; the former spiritless, woe-begone, and utterly crestfallen, and quite unlike his old self—why, I did not stop to inquire, owing to an approaching thunder-storm.

On October 27th, I was told that Mr. Humphry's bird was dead, but that Mephistopheles was all right. *He had had his wings cut*, however, for, as the keeper said, with great emphasis, "he was a little too much!!!"

It will be seen from the foregoing story, I think, that it is not safe to judge of the character of a species from the behaviour of a single specimen, and that a non-rapacious bird may be a very dangerous one.

So little seems to be known of the Black Cassique that a few details may well be placed on record in the *Avicultural Magazine*.

It is a slim small-headed bird, almost snake-headed, long-legged like the Chough, standing and roosting high, and, like the Chough, it fights savagely with both feet and bill, uttering at the same time a not un-Chough-like *caw*. But while the Chough frequents the ground, and works about among the stones in search of insects, jabbering (*c*) to himself the while, the Black Cassique, no lover of the ground, works away amongst the boughs of the forest trees, as silently as satan,—and up aloft, in a wild state, probably obtains a large proportion of its food.

My Black Cassique fed largely on canary and other seeds, including hemp, which he used to shell; indeed, with me he lived chiefly on seeds and mealworms. Occasionally he would eat fleshy fruit, such as a cherry, carrying it up to a perch, holding it down with one foot, and eating it by tiny pecks, for with every food he seemed to swallow only the tiniest morsels. I do not know that he ever touched raw, but occasionally he would peck at a small piece of cooked meat; and ordinary insectivorous food he would just peck over: altogether he was a very moderate feeder. But he was keen after small insects, not only snapping at winged creatures as they passed him on some high perch, usually at the top of a dead tree, but darting into the air after them within a range of some three feet. He was naturally a shy retiring bird, keeping mostly to the trees. Not that he was afraid of the ground, but he showed an unmistakable preference for an arboreal life. When on the ground he walked with an uncertain gait, and occasionally lapsed into a lopsided-Magpie's shuffling hop. He was very wild, suspicious, cunning, and sly; no bold honest knave like the Hunting Cissa, but rather saturnine, and well deserved the name of Mephistopheles, which he bore while with me. Although not delicate for a foreign bird, he keenly felt and disliked the cold.

He was very vain, and would spend hours on a warm day showing himself off. Holding himself perfectly upright like a Pouter Pigeon, with bill pressed down over the crop, he would draw in and hold his breath—like the frog in the fable—until he reached the bursting point. I do not know that his neck-feathers were really much elongated, but he made the most of them by the manner in which he depressed the chin while elevating the head. The small smooth face of the bird, with the eyes protruding as if they would start from their sockets, set in a frame or frill of the long neck feathers, reminded me of an Owl's face when

(c) Thus the male; but I cannot speak for the female, who is comparatively very quiet and retiring.—R. P.

mounted as a hand screen. At length he would have to let go his breath, which would suddenly escape with a violent gasp. This process, on the top of his dead tree, and surrounded by as many female admirers as he could gather around him, would be repeated interminably if not interrupted; and when the sun was shining the colours were very brilliant, not gaudy but chaste. Another point in his favour was that he was very quiet, not noisy, in the aviary.

By the Zoological Society he is called a Black Hangnest, but I think the title of Cassique is better.

And this brings us to a very interesting point, concerning which it is necessary to say a few words.

The sub-family of the Cassiques (*Cassicinæ*) is characterized (by the naked and exposed nostrils and) by the expansion of the base of the upper mandible into a frontal shield. In some of the genera, of which there are about nine, this frontal shield is much expanded and elevated at the base, in others only slightly expanded and elevated. In addition to this, there is sometimes a backward prolongation of the hinder extremity of the lower mandible. In some cases, the expansions, elevations, and backward prolongations are very remarkable; nevertheless, not in any work to which I have access, is the faintest reference made to or hint given of the probable uses in the economy of the *Cassicinæ* of these exceptional and almost unique developments. In some instances, too, the bills are unusually conical. Some are comparatively short and stout, others longer and curiously slim towards the tip, all the species probably taking their food generally in a similar manner, each differing perhaps in detail.

In the Black Cassique these developments are very moderate; but for all that I think Mephistopheles betrayed the family secret while with me, if secret it be, for really it is only a development of some of the actions of the familiar Brazilian Hangnest. For nearly two months he was under close observation in a six-foot cage in my dining-room, inside of which, running lengthwise as a perch from end to end, there was a fine stick of timber, which had once flourished in my aviary, and which may be regarded for the present purpose as a horizontal bough in his native Amazonian forests. Travellers tell us that in the forests of Central America, Brazil, etc., there are any number of dead and dying boughs, and living ones too, which are covered with growths of many kinds, and of necessity rotten bark abounds; and these forests are the home of the Cassiques—and of count-

less myriads of insects. My bird in his cage, and afterwards in the aviary where, thanks to the Parrakeets, there are several of these dead trees, some arranged horizontally, would at first, and until he had lifted off every particle of bark, creep along the bough with the greatest caution, minutely examining the bark, under which he would from time to time insert his bill, pushing it under the bark as far as it would go, until the bark came against the forehead. Opening the bill in the well-known manner of many of his relations, slowly but steadily the dead and perhaps half-rotten bark would be uplifted, and underneath he would cautiously spy for insects. A bird doing this continuously would be continuously rubbing his forehead and the hinder extremities of the lower mandible against the projecting edges of the bark and other matter; and one has only to consider what this means to perceive the value of the developments referred to. And in my opinion it is by hunting in this and kindred ways amongst the boughs and rank arboreal growths that the Cassiques generally obtain a large part of their food in their wild state.

I *should* like to have closed this account of the Black Cassique by saying something pretty; but, alas, this may not be, for I fear that the members of this particular species are a bad lot.

The Cassiques (*Cassicinæ*) as a body, so far as we know them, are a hard-working, industrious, and respectable sub-family. They are said to build elaborate purse-like nests, which are suspended from the branches of lofty trees, as may be seen on reference to the illustration in the Royal Natural History already alluded to. It is from this habit of suspending their nests in some form or another that many of their relations are known as Hangnests. But the Black Cassique will not build a nest for itself. It will not soil its hands with the marks of honest toil. It is far too cunning to work so long as honest folk exist who are soft enough to work for it. Like a good many of the Cuckoos, Cow-birds, etc., and not a few specimens of the genus *Homo*, Mephistopheles will play but he will not work. To use an expression which is common in some parts of Scotland, it is his custom to "sorn upon his relations." According to good authority, Mrs. Mephistopheles (I hope this title is due to her, and that she does not take after her disreputable connections the Cow-birds—*Molothri*) places her eggs in the nest of some relative, from preference selecting that of the Yellow Cassique, *Cassicus persicus*. In those regions which are not frequented by this latter species, rather than build a house of her own she will put up with that of the Crested Cassique,

Ostinops decumanus, and of other relatives about her own size, as she may find convenient.

“Uniform glossy violaceous black; bill and feet black; neck-feathers lengthened and expanded; whole length 14 inches. . . . *Female* similar, but not so bright, and much smaller; no expanded neck-feathers.”—My bird’s eyes were reddish or reddish-brown.

THE AUSTRALIAN WOOD-SWALLOWS.

By H. R. FILLMER.

I believe that nothing has hitherto appeared in our Magazine about these curious birds, beyond a brief reference in Show Reports. So far as I am aware, they had never been imported alive until last year, when a few were brought over, and were exhibited at Shows by one or two of our leading exhibitors of foreign birds.

Last June, I was most generously presented by Mr. Russell Humphrys with two examples, together with a number of other valuable birds. They had been in Mr. Humphrys’ possession for some months, and I still have them, both apparently in good health.

There are two or three nearly allied species. Mine I believe to be *Artamus sordidus*, and I think that all other examples imported have been of the same species. My birds are exactly alike, and I do not know their sex. They are about the size of a Bullfinch, and are not beautiful, the general colour of the plumage being sooty-grey or smoke-colour, with a white tip to the tail. The under wing-coverts are white. The bill is steel-blue, darker at the end. The feet and claws, which are large and strong, are lead-colour. They are not very lively, except when excited by the sight of a mealworm. They are very tame, and will allow themselves to be handled: I judge from this that they were hand-reared.

I have had no difficulty in keeping them on my usual mixture for insectivorous birds, which consists mainly of ants’ eggs and fine crissel. They have about half a dozen mealworms each, every day, and now and then some cooked meat chopped fine.

Judging from the shape of the bill, and their voracity, I should say that they are much more nearly allied to the Shrikes than to the true Swallows.

I keep mine in a large cage by themselves, so that I know

nothing as to their behaviour with other species. They seem attached to one another.

They always sleep on the wires of the cage, high up in a corner and touching each other. They scarcely ever alight on the floor of the cage.

Although, as I have already said, they cannot be called pretty, their soft colouring and quaint ways make them decidedly attractive birds. But I do not think that they are particularly well adapted for captivity, or that their importation should be encouraged. Mine have kept well so far, but they want care and judicious feeding, and at best I do not anticipate a long life for them.

My Wood-Swallows have never uttered a note, beyond a twittering call.

I understand that, when at liberty in their native land, the Wood-Swallows, like our own Swallows, spend most of their time on the wing. It is obvious that, unless kept in an enormous aviary, the habits of an ærial species must be so modified by captivity as to be little or no test of its true characteristics, and this will apply with especial force to hand-reared specimens such as I believe mine to be.

NOTES ON THE BALHAM SHOW OF BRITISH AND FOREIGN BIRDS.

NOVEMBER 7TH, 1899.

By C. S. SIMPSON, M.D.

The small number of entries at this Show must have caused great disappointment, and, it is to be feared, a considerable money loss to the promoters. Nevertheless there were a fair number of good birds, though few of extraordinary beauty or interest. A bird which particularly attracted my attention, was *No.* 446, exhibited by Mr. L. W. Hawkins. This was described as a "Bicheno-Zebra cock." It resembled a Bicheno in character and markings, with the transverse markings on the chest, and the white bars on the tail, of a Zebra finch. If the bird be indeed a hybrid, the absence of the chestnut cheeks and the reddish spotted sides would seem to indicate the female sex. It would be interesting to hear from the owner whether the bird was bred in his possession, and his reasons (which are doubtless good ones) for describing the bird as a male.

Another curiosity was *No.* 243, belonging to the same owner, and described as a Red-faced finch. This bird is, I

presume, one of a pair exhibited at the Palace in February (as *Pytelia afra*). It appears to be either a Red-faced finch or an Aurora finch, with a tendency to albinism; but if so it is curious that there should have been a pair of them with similar markings. When I first saw them I thought they might be immature birds. That supposition was evidently a wrong one. Can the owner of the birds throw any light on the subject.

Mr. Fulljames' bird, formerly called a Long-tailed Combasou, has been finally identified as a Resplendent Whydah, and appeared in full health and beauty. The name is somewhat misleading, inasmuch as the bird is by no means brilliantly coloured.

The Violet-eared Waxbills, which have been a conspicuous feature of recent Shows, were here only conspicuous by their absence. They are delicate birds, and it is to be feared most of those imported have already died.

The genus *Poephila* was well represented by the Long-tailed (*P. acuticauda*), White-cheeked (*P. leucotis*) and Masked-finches (*P. personata*), besides the better known Parson and Gouldian finches. The latter always seem to find Shows very trying to their constitution, and some specimens at least generally look languid and puffy. I gave up keeping Gouldian-finches some years ago on account of their delicacy, in the hope that some of our younger and more enterprising aviculturists might discover the secret of keeping them in health, but, so far as I am aware, the secret is yet undiscovered. There were two pairs of Three-coloured parrot finches in good condition but wild. They did not strike me as being very attractive birds.

Mr. Fulljames' Blue-headed Tanager is a lovely bird and looks hardy enough, and his pair of Zosterops were charming. The same gentleman's Andaman, Black-headed and Malabar Mynahs, in the next class, were perfect examples of the right way of exhibiting birds. Each bird was spotlessly clean, with every feather in place, and shewn in sufficiently large, yet unobtrusive, cages.

A pair of Nicobar Pigeons would doubtless have been handsome and attractive in a clean, roomy aviary, but in a small, and, therefore, dirty cages, they were far from prepossessing.

In the last class was the beautiful Green Touraco, which has been pretty frequently seen at recent Shows. A very remarkable bird was the Sacred Kingfisher, a bird whose unobtrusive brown plumage formed a curious contrast with a pair of wonderful, deep-blue eyes. There were also a pair of the

quaint Australian Wood-swallows, a pair of Australian Bell-birds, a Dyal, and an interesting little pair of Mannikins, which seemed oddly out of place in the class: they were described as Striated-finch Bengalese hybrids. My own belief has always been that the Bengalese is an Albino variety of the Striated-finch.

By D. SETH-SMITH, F.Z.S.

This Show was held by the British Bird and Mule Club in the Balham Assembly Rooms, on the 7th, 8th, and 9th of Nov., and so far as the quality of the exhibits went, could hardly have been excelled.

In the following brief notes I don't intend to criticize the judging; but rather to say a few words about the birds that appeared to me to be of especial interest to aviculturists.

I have nothing to say about the commoner British birds, but in Class 9 there were one or two specimens of some interest. Here were two Ortolans and a Serin (I don't know why they were allowed in a "British" Class, but that is not my business now), and two good Crossbills, as well as, of course, many commoner kinds. In another class two good Choughs were worthy of notice.

The class for Pied, Albino, or other rare freaks, contained some interesting exhibits, amongst which were an albino Black-bird, a black Bullfinch, a white House-Sparrow, a white Linnet, and Mr. Fulljames' Cinnamon Starling, which must be getting used to Bird Shows by now. In the catalogue I notice that a white Hedge Accentor is mentioned, but I evidently overlooked it: if it was the same bird that was shewn at the recent Crystal Palace Show, it was well worth seeing.

There were some interesting exhibits in the class for resident insectivorous British birds; amongst which may be mentioned two particularly nice Stonechats, a Marsh-tit, two Long-tailed Tits—one of which belonged to the white-headed race, which is *not* British, and a Crested Tit, whose British origin I also much doubt. Two Greater-spotted Woodpeckers were shewn. By the way, when are we to see the Lesser-spotted Woodpecker on the Show-bench? It should not be difficult to keep.

There were some nice Whinchats in Class 21, a good Spotted Fly-catcher, a Chiff-chaff, and a very large Wheatear; but the most interesting bird was undoubtedly a Black Redstart—I question, though, whether it should not have been in the class

for Continental birds. To my mind the nicest British bird in the Show was the Wryneck, shewn by Mr. Fulljames, which was about as perfect a specimen as one could wish to see, and seemed perfectly reconciled to its life in captivity.

The class for Continental birds was well filled, and contained some really charming specimens, the most interesting perhaps, being a magnificent Hoopoe. This was closely followed by a fine Black Woodpecker, in good condition; certainly a very rare cage bird. There were also in this class some very nice Rock-thrushes, both of the Blue and common species, and a lovely Blue-throat.

The Foreign section contained some remarkably good birds, several of which, most of us had never before seen in a living state.

Mr. Fulljames' pretty Resplendent Whydah was in capital show form, and looked very neat. There was a good pair of *Bathilda ruficauda*, a species which I hope, ere long, may again be imported. A single specimen of *Pytelia afra* was shewn by Mr. Hawkins; and Mr. Fulljames sent a nice pair of Firefinches (*Lagonosticta*), but I cannot say to which species they belonged.

In the class for Gouldians, Parrot-finches, and Pintail Nonpareils, there was a pair of Gouldians, in which the hen had just as much red about her head as the cock; this was, I think, the finest pair of Red-headed Gouldians I have ever seen. There were two good pairs of Tri-coloured Parrot-finches, and one pair of the less rare, but to my mind, far handsomer Common Parrot-finches.

The most interesting bird in the class for other Grassfinches was a Bicheno-Zebra-finch hybrid, an extremely pretty novelty, though I doubt whether, strictly speaking, it should have been allowed to compete in this class. A good pair of Masked Grassfinches were worth notice, as were some well shewn Bichenos, and two or three pairs of Long-tailed Grassfinches, one pair of the latter being aviary-bred and still in their nest-feathers.

There were some lovely Tanagers, including the Blue-headed, a charming bird; the Bluish, Black, and one or two others. A very nice pair of the Australian Grey-backed Zosterops was also shewn. Starlings were fairly well represented, the small Glossy, Purple-headed, Andaman, Black-headed, and Malabar being shewn, and all in excellent condition.

The Dove class was very poorly filled, a pair of Nicobars, and a solitary "Peaceful" Dove being the only occupants.

Amongst the Parrakeets there were several exceedingly good birds. Mr. Doherty shewed a good pair of Kings and a fine Crimson-wing. The gem of the collection was, however, Mr. Fulljames' hen *Polytelis alexandræ*, and she seemed to be in excellent health; but one has seen her before, and personally, I was most interested in a lovely pair of *Platycercus browni*, which were also shewn by Mr. Fulljames. I don't remember ever to have seen Brown's Parrakeet before, and it is undoubtedly extremely rare in this country, if in fact it has ever before been seen here alive. According to Gould, Brown's Parrakeet is found in abundance in the north of Australia, so that there should not be any trouble about importing it. I was much pleased with Mr. Maxwell's Golden-shouldered (*Psephotus chrysopterygius*), she is a charming little thing, and it is a great pity that this species is so very rare that a mate cannot be obtained for her. A pair of Blue-bonnets were also worthy of notice.

The only Lorikeets shewn were a Forsten's and a Scaly-breasted. The most interesting of the true Parrots were a Hawk-headed, a Bronze-winged, and a Meyer's; the latter species being to my mind the most delightful of all parrots.

Mr. Fulljames shewed a Hyacinthine Macaw, a rare, but in my opinion, most undesirable species. I much preferred the same gentleman's fine pair of Ganga Cockatoos.

A very interesting class was that reserved for all species of foreign birds not included elsewhere. Mr. Fulljames shewed a Regent-bird, a species that has probably never before been seen upon the Show-bench. A pair of Wood-swallows, which I am told were the same that appeared at the Palace last February, looked remarkably well. One would expect these birds to be difficult to keep, but Mr. Fulljames informs me that they are comparatively easy subjects to deal with. At night they hang, head downwards, from the roof of their cage, like the Hanging Parrots and Bats. A good Satin Bower-bird, in the female or immature male plumage, and a Warty-faced Honey-eater were also exhibited by Mr. Fulljames. Mrs. Frostick shewed a good pair of Australian Bell-birds and a Malaccan Dhyal-bird; and I may, perhaps, mention my own exhibit in this class, an Australian Sacred Kingfisher (*d*).

(*d*) On account of an unfortunate printer's error, which appeared on the Show labels, and which directed that exhibits were to be at the Show by 9 p.m. on Nov. 7th, (whereas they should have arrived the previous evening) the Sacred Kingfisher did not arrive at the Show until after the judging was over and the Judges had left.—D. S-S.

I must say that the way in which the Show was managed left nothing to be desired, and I can testify to the excellent way in which the birds were looked after, and to the great care bestowed upon the delicate specimens.

ZOO NOTES.

By J. LEWIS BONHOTE.

II.—OCTOBER.

Oct.	3	2	Ballous Aracaris— <i>Andigena bartloni</i> Brazil.	Parrot House.
„	5	1	White-browed Amazon— <i>Chrysotis albifrons</i> Honduras.	Parrot House.
		2	Orange-flanked Parrakeets— <i>Brotogerys pyrrhopterus</i> W. Ecuador.	Parrot House.
„	6	4	Red-crested Pochards— <i>Fulgula rufina</i> India.	Duck Ponds.
„	7	1	Chopi Starling— <i>Aphobus chopi</i> Brazil.	W. Aviary.
„	9	1	Common Cormorant— <i>Phalacrocorax carbo</i> Holland.	E. Aviary.
„	11	1	Emu— <i>Dromaius novæhollandiæ</i> Australia.	Ostrich House.
„	11	1	Uvcean Parrakeet— <i>Nymphicus uvæensis</i> Island of Uvcea.	Parrot House.
		1	Rosy Parrakeet— <i>Palæornis rosa</i> Burma.	Parrot House.
„	13	1	Westerman's Eclectus— <i>Eclectus westermanni</i> Moluccas.	Parrot House.
„	18	2	Herring Gulls— <i>Larus argentatus</i> Europe.	Gull Ponds.
		1	Melodious Jay-Thrush— <i>Leucodipteron canorum</i> China.	W. Aviary.
„	19	1	Bennett's Cassowary— <i>Casuaris bennetti</i> New Britain.	Ostrich House.
		3	Short-eared Owls— <i>Asio brachystus</i> S. America.	N. Aviary.
		1	White Goshawk— <i>Astur novæhollandiæ</i> Australia.	N. Aviary.
„	20	1	Spoonbill— <i>Platalea leucorodia</i> Capt. at Sea.	E. Aviary.
		1	Kestrell— <i>Falco tinunculus</i> Capt. at Sea.	N. Aviary.
„	21	1	Ring Ouzel— <i>Turdus torquatus</i> British Isles.	W. Aviary.
		2	Sacred Kingfishers— <i>Halcyon sancta</i> Australia.	W. Aviary.
		1	Forsten's Lorikeet— <i>Trichoglossus forsteni</i> Isle of Sumbawa.	Parrot House.

Oct. 23	1	Westerman's Parrakeet— <i>Eclectus westermanni</i>	Moluccas.	Parrot House.
	1	Corn Crane— <i>Crex pratensis</i>	British Isles.	W. Aviary.
„ 25	1	Great Vasa Parrot— <i>Coracopsis vasa</i>	Madagascar.	Parrot House.
„ 26	2	Black-tailed Godwits — <i>Limosa ægocephala</i>	British Isles.	Fish House.

The additions this month do not call for very much comment, and, as in the preceding paper, the most valuable are to be found in the Parrot House.

Several more specimens of that very scarce bird, Westerman's *Eclectus*, have arrived. This is the first occasion on which the female of this species has been seen, for up to the present the species has only been known by a few males, scattered in various Museums. The female is similar to that of *E. pectoralis*, but the blue on the lower breast is of a dull purple, instead of being similar to the collar, as in the last named species. The male may always be distinguished by the absence of red on the sides of the breast. Next to the *Eclectus* was a very fine specimen of Forsten's Lorikeet, a lovely bird with blue head and neck, rosy breast, and green back.

A specimen of the Greater Vasa Parrot from Madagascar, is also worth more than a passing glance, belonging as it does to a peculiar genus, with a long tail and short stumpy bill, its colour being of a uniform dull grey.

But among all the rarities, perhaps the neatest and most valuable, is the Uvœan Parrakeet, from the Island of Uvœa. It is a very small bird, about as large again as a Budgerigar, with the breast, forehead, cheeks, and rump of a delicate light blue colour. The head is glossy black, and a narrow black line runs down the nape. The back is uniform light grey with a canary yellow patch on each shoulder. A second specimen, presumably young, was in the same cage, and was dull yellow in front, and grey on the back.

The other new arrivals in the Parrot House are a nice pair of Orange Flanked Parrakeets, which were very lively, running up and down their cage exactly like mice. I do not remember ever having seen a Parrot *run* head downwards before.

In the other aviaries there has been but little of interest this month. Passing through the Western Aviary one notices a magnificent Lanceolated Jay Thrush in splendid feather. There are also two specimens of the Pied Grallina, from Australia; a black and white bird, which, to the untutored eye, has similar

habits to that of our English Wagtails; it is, however, a considerably larger bird, being about the size of a Thrush, and would, I should think, be well worth keeping by those members who have sheltered outdoor aviaries.

A splendid specimen of the Sun Bittern (*Eurypyga helias*), was also on view, spreading its wings, with their gorgeous tints, to such sun as finds its way through the mist of a clear (?) London November day.

CORRESPONDENCE.

BREEDING OF THE AFRICAN FIREFINCH.

SIR,—I think the few following notes on the successful nesting of the African Firefinch, in an unheated garden-aviary (a mere shed, fully exposed at its southern side, and with an open wire flight) will not be uninteresting to many of our members.

I have had a pair of these birds for the past two years, and last season they spent most of their time out of doors, and, whilst there, built, laid eggs, but did not incubate. They were brought into the house on October 15th, and were not put out again until April 3rd, of this year. They went to nest again, but it was not until July 29th that a fully-fledged young one left the nest: it was then exactly nineteen days old, and in plumage it resembled the adult female, with a black beak and dark legs, but showed considerably more red on the rump and tail than she did, but less than its father; from this I concluded it must be a young cock—which it eventually proved to be. To-day, as I write (Oct. 14th) it is almost in full colour, and has the red beak.

The parents again nested, and brought off another young one on Sept. 17th. This last one differed considerably from its elder brother, in being much greyer in colour and having less red on the rump and tail, than its mother. It appears, therefore, that the sexes are easy to distinguish, even when quite young.

It is worthy of notice, considering the hot-house treatment this species is supposed to require, that the maximum temperature during the day-time, when this last young one left the nest, was as low as 42° Fahr., and fell during the night to 36°. The cold weather we have had recently seems not to affect them in the least; they are out at the time of writing, and the temperature, on more than one occasion, has been as low as 26°. This speaks well for the hardiness of the species, when once acclimatised.

The size of the aviary is 12 feet by 6 feet and rather more than 6 feet high, and contains, besides about a score of other small birds, six Red-rump Parrakeets.

G. Le C. GRACE.

SEXES OF PENNANT PARRAKEETS.

SIR,—I am afraid Mr. Farrar is very far indeed from proving his case. The female Pennant, as several of our members have correctly stated,

differs from the male in its slightly inferior size, rounder head, and duller crimson colouring. Neither sex of the Pennant has the central tail-feathers wholly pure blue; if closely examined, it will be seen that the inner webs are shot with bluish-green. The Adelaide Parrakeet in no respect resembles a Mealy Rosella: it is chiefly of a brick- or orange-red colour, with similar pattern and arrangement of colours to those of *P. elegans*, but the whole of the tints are paler and the central tail-feathers are considerably greener. How Salvadori came to describe the tail as resembling that of *P. elegans* I do not pretend to explain, for none of the specimens with which he worked can be correctly described as having a "tail as in *P. elegans*."

Mr. Farrar's argument that five Adelaides could not be picked up on easy terms is plausible; but rare birds are sometimes offered on easy terms, as I know from experience: some five or six years ago, I picked a little bird out of a lot offered by a London dealer at three shillings apiece, and a year later the same man was offering a specimen at a sovereign, and declaring that he had never before seen a living specimen; my bird is still living, and in perfect plumage. I have heard of many similar instances.

Undoubtedly it is the business of a dealer to recognize a rare bird when he sees one, but many of them do not. In Germany the Adelaide Parrakeet is not accounted rare, and Russ states that its price is the same as that of the Pennant Parrakeet.

A. G. BUTLER.

SIR,—I have no intention of continuing the controversy with Mr. Farrar, but I must, for the sake of those of your readers who have never seen the Adelaide Parrakeet, take exception to his comparison of the difference between a Pennant and an Adelaide with that between a Pennant and a Mealy Rosella. The Adelaide looks like a washed-out Pennant, while the Mealy Rosella and the Pennant differ in colouring almost as much as a Grey Parrot and an Amazon.

HORATIO R. FILLMER.

BROWN-AND-WHITE BENGALESE, AND STRIATED FINCH.

SIR,—The nest of five young from a Brown-and-White Bengalese hen mated to a Striated Finch (concerning which you said it would be interesting to note what they were like, when they left the nest) have done so for about a week.

Three of them are exactly like the Striated Finch—not a single white feather to be seen. The other two have a little white, over the beak, on the breast, and a few white feathers in the wings—one bird rather more than the other.

R. M. BARBER.

BICHENO'S FINCH.

SIR,—I have been fortunate enough to have bred in my bird-room, a Bicheno's or Double-banded Finch. As I write, the young one is in good health and well on seed. From two pairs of these birds, quite a wholesale number of eggs have been laid, but only one bird has been successfully hatched and reared.

G. D. G.

ENQUIRIES.

SIR,—May I ask of any member of the Council or Society, who has had experience, what is the best food for the so-called Blue Mountain Lory—Swainson's Lorikeet?

Dr. Greene says they will live a few weeks or months on seed, and then die in fits of indigestion, and gives rice boiled in sweetened milk as the rational diet, also sweet fruit.

Dr. Russ says the staple food should be canary seed, oats, and a little hemp, with moistened stale wheaten bread in addition, and sweet fruit daily. Speaking generally of Lories and Lorikeets, he says the supposed delicacy of these birds arises from ignorant treatment, *i.e.*, feeding on BOILED RICE, which may suit them in their own hot climate, but is too hurtful in ours. Also that cows' milk is injurious to Lories.

Here we have two experts diametrically opposed in the most important matter of feeding.

My pair are in superb plumage, and, apparently thoroughly healthy and acclimatised, so I wish to take care of them. I am giving canary, oats, and hemp, which they eat well. Also old bread dipped in very sweet milk, or freshly made cheese curd rolled in powdered sugar—both these they lick with their tongues and then eat it with relish. They are rather thirsty birds, and love bathing.

Dr. Greene accuses them of being fierce and cruel as hawks: his pair having murdered two of his Parrakeets and injured another. May I ask if this is the average experience? Mine are in a cage, but it would be a convenience to me if I could trust them in a space 11 feet by 4 feet by 6 to 9 feet high, in company with a pair each of Cockatiels, Grey-headed Love-birds, and Budgerigars.

Finally, is there any difference in the sexes? Mine are exactly alike in size and plumage, except that one has distinct blue pencillings on the edges of its scarlet breast-feathers, which scarcely show on the other. They spend their time caressing and then snapping at each other. They yelp like a newly-chained up fox terrier pup with a voice like an ungreased cart-wheel.

A. A. PEARSON.

The following answer has been sent to Mr. Pearson—

Your letter *re* Swainson's Lorikeet has been sent to me to be answered.

I should recommend biscuit soaked in boiled milk as the staple diet, with the addition of some fruit daily. Apples are generally preferred to all other fruit, and one good-sized apple will be enough for a pair of Lorikeets. In the summer they may have green food. A little canary seed and oats will do no harm, but I should not recommend hemp. If they have a constant supply of properly made sop, they will probably almost entirely give up eating seed. The sop must be made fresh every day, but it will keep good for twenty-four hours, even in the hottest weather. It should be unsweetened—this I believe to be important.

It would not be safe to place the Lorikeets with other birds, unless they were very carefully watched at first, as they are often murderously spiteful. I should not care to trust them with smaller birds.

HORATIO R. FILLMER.

SIR,—My Senegal Parrot has never properly regained his plumage since he moulted, a process which lasted an unusual time. All that part which should be a brilliant orange colour, looks ragged and more white than yellow. He seems in perfect health, and I should be glad if anyone can tell me the cause of this, and if anything can be done for it.

C. L. COLLIER.

The following answer has been sent to Miss Collier—

It sounds as if the bird was plucking itself. I have found what I thought had moulting turn out to be that.

I daresay it has plenty of occupation. In case it is weakness, a few drops of Wyeth's iron might be added to its water. I suppose it bathes; if not, it should be sprayed.

F. G. DUTTON.

GOULDIAN FINCHES.

SIR,—I shall be glad of some information regarding these beautiful birds, as three have lately come into my possession, and I am unable to obtain any particulars from the books on foreign birds which I have by me.

1. Is there any marked difference in the plumage by which one can distinguish the sexes?
2. Have the Black-headed Finches ever been mated with the Red in this country?
3. Do the birds require insect food in addition to the ordinary seed diet?

I may add that my three birds consist of two Red-headed and one Black-headed Finches. The two former have a kind of song, but one is more brilliant than the other in colour. The Black-headed Finch does not appear to have any song, and I am wondering whether it is a hen, and if so whether it will mate with one of the Red-heads.

H. E. GODDARD.

The following answer has been sent to Mr. Goddard—

At various times I have had over a score of these birds; and, if you look either at my "Foreign Finches in captivity," or "Foreign Bird-Keeping," you will find full accounts, with illustrations, of both varieties of Gouldian Finches.

The female can be told at a glance from the male, by the pale colouring of the under-parts: the breast lilac instead of ultramarine shaded with violet, the abdomen lemon-yellow fading to white instead of saffron-yellow; there are other less pronounced differences, but these will suffice.

Black-headed hens (invariably, I believe) prefer Red-headed cocks; one of my earliest hens deserted her Black-headed mate for a Red-head: this certainly sometimes happens when they are at liberty in Queensland, as both forms have been shot from the same nest.

No insect-food is required, nor have I ever seen a Gouldian Finch touch soft-food; but millet in the ear, and grass-seed in the ear, are almost necessary to the newly-imported examples.

A. G. BUTLER.

SIR,—I have a Blue-bird which I bought last week, and was told that it was a Honey-eater and would eat insect food (Arthur's) and fruit, like the Tanager; but I do not find that it answers to the description of the Honey-eaters. It is smaller than my Superb Tanager, and is more sober in its shades of blue. It has a patch of yellow at the root of its beak and also on its back; but is chestnut-brown underneath, and its beak is a little more pointed than the Tanagers. I have given it banana, orange, pear, and sponge cake mixed with honey, and Arthur's mixture mixed with cold potato—the same food that I give to the Tanager, and which seems to suit it.

I shall be much obliged if any member can help me to define what bird it is. I think it must be the Blue Robin, only it is a small bird.

MARY MILLER.

THE MAGAZINE; THE LATE DR. RUSS.

SIR,—The accounts for last year show that the Avicultural Society has expended a little more than its income, and is at present indebted to its Honorary Treasurer for £12 1s. 6d. balance on the wrong side.

I enclose my annual subscription, to which I have added 2s. 6d., and I venture to hope that of the 289 members a sufficient number will be glad to make such a small addition to their subscription to extinguish the little debt.

A foot-note to the Balance Sheet explains that the cost of the coloured illustrations has considerably exceeded the original estimate. Their cost has, indeed, absorbed one-half of the total receipts from subscriptions, entrance fees, and advertisements. I venture to suggest that it would perhaps be good policy to restrict the number of coloured illustrations to two, at the utmost, per annum. One every three months would, I think, be ample; and a sound financial position is perhaps more conducive to the best interest of the Society, than a coloured supplement more or less.

I see with pleasure that the Members' List, published a few days ago, contains the names of so many ladies; that of three new members who joined the Society last month, two are ladies, and that the three new candidates are all ladies. As many ladies have more time for the observation of cage-birds than the majority of men, I hope the lady-members will in future frequently record, in the pages of the Magazine, interesting new facts.

I have seen no mention in the Magazine of the death of Dr. Karl Russ, which occurred some months ago. The deceased naturalist was probably the most enthusiastic lover of foreign cage-birds of his time. He devoted a long life to the care, observation, and description of birds and their habits. All readers of his many works and writings on the subject, will remember them with pleasure. (e)

A few readers of the Magazine may recollect having seen the magnificent collection of foreign birds Dr. Russ sent over and exhibited at the Crystal Palace, about twenty years ago. It contained a few hybrids of extreme rarity. At that time Dr. Russ was already advanced in years. He

(e) I think one reason for this was, that it was reported that a nephew of the famous gentlemen (and not Dr. Russ himself) had died.—A. G. B.

was always pleased to show his bird-rooms in the suburbs of Berlin, where I used to visit him many years ago, as often as I happened to be near Berlin. He seems to have attained a great age. His writings, especially those relating to foreign finches, may be a source of useful information and of pleasure to those who know German.

A. F. WIENER.

NOTE.—We have every hope that, at his leisure, Mr. Wiener will favour us with some account of the life and work of Dr. Russ, our greatest guide and pioneer in aviculture, which would be of much interest to all members of the Society.—EDITOR.

SIR,—I shall be so glad if any of our members can tell me whether Moor-hens feed on young fish? We have stocked our moat with gold-fish, but although there was plenty of spawn last spring, no young fish have been seen. We think it may be because a pair of Moor-hens have been living there very happily all the summer. The moat is surrounded by low growing bushes, and so makes a delightful home for these birds; but if they really do eat the young fish, we shall be obliged to cut the bushes back and so force them to seek other quarters, but of course should not do so if they are really harmless.

I do not think the attention of our members has been sufficiently directed to the pleasure to be gained from supplying wild birds with inviting nesting-places near the house, where they can be watched without disturbing them.

Last spring, I hung one of the nest-boxes from my aviary in a pear-tree growing against a wall close to the house; it was a cosy little affair covered with virgin cork, and, I hoped, might attract some of the Tits which used to come to that corner for cocoa-nut. However, about a fortnight after it was put up, a pair of Flycatchers took possession of it, building on the top instead of inside. They were wonderfully tame, feeding their young ones unconcernedly, even while we sat at tea not more than half-a-dozen yards away. They successfully reared five young birds, and confirmed Gilbert White's opinion that these birds never nest a second time. I am hoping they will return to the same place next year, as they were never disturbed.

Pretty little boxes can be made from half a deep cigar box, coated with glue, and sprinkled with cork-cuttings in which bulbs are packed. My boxes have lids, which can, on occasion, be opened to give me a peep at the young birds, but this I should only do in the case of Sparrows or, possibly, Robins. I think Robins, Starlings, Sparrows, and the Tit tribe would be likely to nest in boxes placed in suitable positions.

It is also very interesting, in winter, to hang up a cocoa-nut with one end cut off, and to see the Oxeye-, Marsh-, and Cole-Tit returning to it again and again. Each bird knows exactly who he can turn out of the coker-nut, and to whom he must give place; and they pop in and out like boys "keeping the pot boiling."

E. BRAMPTON.

The following answer was sent to Miss Brampton—

In reply to your query *re* Moor-hens eating young fish, I do not think it at all likely that they would in anyway interfere with them. The food of

the Moor-hen consists of slugs, worms, grass, and, where procurable, grain, and also any insects that may come their way.

I should think it more probable that the fish themselves ate the spawn, especially if there was any scarcity of food; Newts, I believe, are also destructive to young fish.

J. L. BONHOTE.

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WILD AND TAME HOOPOES.

By the Rev. HUBERT D. ASTLEY.

Hoopoes seem to be tamer in a wild state in Eastern countries than in Western. In Africa, India, and China, they are, in certain parts, familiar and fearless birds, but those that migrate for the spring and summer months to Europe prefer more secluded meadow lands, and woods; yet, if this most lovely bird were suffered to remain at peace as an English migrant, there is little doubt that in time we should look for Hoopoes in our gardens in the spring, as we do for Cuckoos and Nightingales, and the rest. Not a year goes by without specimens of these birds being shot, so that it is impossible for them to make a start in establishing themselves as regular visitors. In the Scilly Isles every April brings with it three or four Hoopoes, but passing whither, no one knows; for they arrive only to spend a week or two, and are gone again, yet their passage in the vernal migration is an annual event.

In the water meadows and rich low-lying pastures of some parts of England, Hoopoes would undoubtedly find an abundance of insect food, and would also be extremely useful in digging out with their long slender bills, certain grubs destructive to farming and gardening, which many birds with shorter bills may be unable to reach beneath the surface of the earth.

Anyone who has voyaged up the Nile, has not left Cairo far behind before the Hoopoes are evident to the most unnoticing persons.

He is a bird of such striking appearance, with his wonderful coronet uplifted on his head, the long slender and slightly curved bill, and the beautiful broad butterfly-like wings, banded conspicuously with black and white.

Walking through the Egyptian villages, it is an ordinary thing to see one or two Hoopoes running quickly over the dried Nile mud, either on the edge of some canal or pool, or else prod-

ding with their bills amongst the refuse that lingers lovingly but unsweetly about the mud hovels of the Arabs. In Egypt there is an abundance of beetles, which probably make up a considerable portion of the Hoopoes' menu, but to judge by the appalling effluvia that surrounds the nest and young birds, they cannot be altogether nice feeders. Like some people, their sense of taste must be either absent or else somewhat depraved. They remind me in this respect of a luncheon party I was once at. It was extremely hot summer weather, and in London. There was dressed crab amongst other delectable dishes! One lady guest seemed to be enjoying it so much, that when it came to my turn, I too helped myself. One mouthful was not only enough, but too much. I looked round the table; three other guests appeared aghast, portions of the crab untouched upon their plates. "Isn't the crab good?" said the hostess. As no one else spoke, I ventured to say, "Well, I think crabs are very difficult to keep *quite* fresh in this kind of weather, and fishmongers are not always to be depended upon." My hostess at once turned to the lady whose appreciation of decaying crab had beguiled me into tasting it, and said, "Pray don't eat it." But she was too late, for like the Walrus and the Carpenter with the oysters, she'd eaten every bit, and (perhaps with due consistence) stuck to it that *her* helping was *quite* good; yet it was all part of the same old crab! As with people, so with birds: there are some who prefer freshly killed food, there are others who don't object to its being decidedly tainted, and Hoopoes are perhaps to be numbered among the latter.

I hold to this, because when a brood of young Hoopoes was brought to me by an Arab boy at Assouan, that brood nearly knocked me backwards. But in three days time, after they had been fed on clean and fresh food, their disgusting smell had all but faded away; and all young Hoopoes that I have ever come across have equally affected the olfactory nerves.

When our dahabeah was moored opposite Assouan, below the first Cataract of the Nile, to a sandbank in close proximity to the Island of Elephantina, I had ample opportunity for observing the Hoopoes. In the early morning, before one was properly awake, two of these birds used to settle on the dahabeah just above one's cabin window, where they would utter continually their love song, *hoo, hoo, hoo—hoo, hoo, hoo*; partly Dove and partly Cuckoo-like in sound. To see the male birds sparring at each other is extremely pretty, dancing in the air one over the other, like two large butterflies.

After I had managed to pick up a smattering of Arabic, I used to endeavour to make known to various Egyptian boys the fact that I was very anxious to obtain a brood of young Hoopoes, having been able to utter, with what I thought extreme glibness, the words "Katakit hidadid," which, being interpreted, means a brood of Hoopoes; but whether these youths mistook my meaning, or else considered that a brood of any birds would suit me equally well, I know not. At any rate, for a week, I was brought nothing but young Sparrows, varying in age from three days to ten. It was not in vain, however, that I used to shake my head and say, "La! la! Hidhid, mafish baksheesh," by which I meant "No, no, not that, but Hoopoes, you shall have no present." Consequently, the very next morning (it was early in March) as I was sitting on the upper deck of the dahabeah under the awning, there came to my ears the sound of much splashing and yelling. From the neighbouring island, through the shallow water that divided it from our sand bank, three of my copper-skinned Arab boys were racing, one of them holding his white robe above his knees out of the water's reach in one hand, whilst in the other were three struggling ungainly-looking bird forms, which, even at some little distance, I saw were at any rate not Sparrows.

"Shoof, shoof, Hidadid"—"Look! look! Hoopoes,"—cried all the boys simultaneously, and I thought the poor little birds would have been then and there torn to pieces, for each boy tried his best to be the one to hand them over to me, with the usual Arab-like clamour, impetuosity and excitement. Yes, sure enough, they were unmistakeably Hoopoes, easily recognizable even at perhaps a week old. Their crests were already well developed, and the quills that covered their odoriferous bodies showed the black and white bars of the wings and the russet brown of the general plumage.

After having duly rewarded the young Arabs, I placed my Hoopoes in a covered basket lined with hay, where at first they huddled into the farthest corner, nearly turning head over heels in their endeavours to escape from my sight, their hind quarters up in the air, and their heads, with the double row of crest-quills widely separated, nearly doubled beneath them.

And their smell! well, smell isn't the word! At that age Hoopoes' bills are of course not nearly so long as in the adult bird, and the gape of mouth, with the large yellow edging is enormous. The only sound at first emitted was a frightened hiss, but after a few hours, first one and then another began to feed, when they uttered a jarring note, which lasted as long as they

stretched up their necks and opened their mouths with the lovely interior colour of orange-red. They were fed on small pieces of fresh raw meat, mixed with an insectivorous food brought for the purpose in tins, from England.

Hoopoes nest very early in Egypt, as early as Black-birds do in England. The first nest I came across was at the end of February, when we were voyaging between the first and second Cataract of the Nile ; at Kalabsheh, famous for the remains of what must have been one of the most magnificent Temples of Egypt, but now in ruins from the ravages of some great earthquake aided by Time.

Landing at Kalabsheh, and surrounded by the natives of the place, I at once pursued my search for young Hoopoes, for I had not yet received the brood just described. It was fast growing dark, and we should be leaving at early dawn on the following morning, so that it was a case of 'now or never.' On hearing my enquiries in broken Arabic, a good looking young man stepped out of the crowd, and said, "Aiwa, henna"—"Yes, here,"—pointing with a graceful wave of a brown arm and hand towards some rocks at the back of the village. As usually happened, the whole assembly of some thirty or forty men and boys immediately commenced to gesticulate and shout at me and each other, until I was forced to put my fingers in my ears, and run.

This seemed to improve matters, for the original announcer of the whereabouts of a Hoopoe's nest, came after me, and plucking my sleeve, said, "Taala maaya, henna ! henna !"—"Come with me, here ! here !"—as he walked ahead through a grove of date palms, which towered up above us, and through whose graceful branches the stars were beginning to gleam with the brilliancy peculiar to an Eastern sky. Then it suddenly struck him that it was already too dark to find the nest without artificial light, so making me, by expressive gestures, understand that I was to wait whilst he fetched something, he ran off to the dababeah, returning in a few minutes with a candle and some matches. Then he led me,—followed in the near distance by several boys, to whom I vainly shouted "Emshi ruli"—"Go away,"—towards the rocks that skirted the mud houses of the village.

Clambering up to a narrow fissure, formed by one huge boulder on another, he lighted the candle and peered in, his black eyes glittering near the flame ; whilst I followed, a boy on either side supporting either arm, under the impression that I could not possibly manage the rocky ground without such aid.

It was evident that my original guide knew what he was about, for he at once turned to me and pointed into the fissure. With much difficulty, and after nearly frizzling off the tip of my nose, I at last discerned, about four feet in, a Hoopoe. The fissure was so narrow that even she could not stand upright. There was such a flooring of sand and small stones within that it was impossible, by the light of one candle, which cast shadows of every shape and form, to see whether there were any eggs or young ones; but when I attempted to state my disbelief in their existence, I was met by a hurricane of denials—"Young ones, young ones." At first I thought that with the usual ignorance of the Egyptian (or Nubian) countryman about birds, he was under the impression that the undoubted adult bird was a young one, and consequently vehemently denied his assertion.

But no! again he said "Young ones, young ones," whilst the other boys caught up the refrain in chorus. And he was right: for, cutting a long and slender palm branch, which he inserted into the innermost depths of the fissure just in front of the poor frightened Hoopoe, he gradually and with much difficulty scooped towards the opening, a poor wretched little bird of a few hours old, which was rolled over and over on the rocky flooring until it was within reach of his arm. It seemed futile to attempt to rear it by hand, and equally so to push it back into the depths of the rocky nest; so I took it, and kept it alive for twenty-four hours, during which time it fed well, and really collapsed I believe from suffocation, having wriggled its poor small pink body into a deep fold of the flannel in which it had been wrapped, so that its wobbly head was bent under its breast. It would have been a triumph to have reared it. At that early age the fluff on the head was largely developed into the form of a crest, but the bill was quite short as with any other young bird.

I succeeded in bringing to Cairo seven well-grown Hoopoes and, much as I loved them, could I ever go through such a business again? I think never! They had to be fed constantly, and each bird had to be taken out of the cage in turn so that the food could be placed in its mouth, for otherwise it was thrown about inside the cage, and the birds would have ended in being half starved.

As I was staying ten days in Cairo, before leaving for England, I used to allow two of the Hoopoes which were particularly tame, to fly about upon the spacious balcony which opened from my sitting-room; and very pretty it was to see them

sunning themselves on the balustrade, lying down and spreading out their wings, crests, and tails to catch the full heat, until they looked, with their black and white bands and bars, like some puzzle or kaleidoscope.

The cage in which they lived was an Egyptian one, made of cane, with a sliding door. With constant opening and shutting, this door slid back extremely easily, so that perhaps my horror may be imagined when, on returning from the Bazaars one morning, I found the door pushed back, and all seven Hoopoes flitting about in the trees which grew opposite the hotel. Kites and wicked Grey Crows (the wretches!) were gathering round, eyeing my poor innocent Hoopoes, some of which, highly delighted at finding themselves at liberty, were preening their feathers and erecting their crests, and looking generally perky.

That I should ever recover them all again, I doubted; especially as at that moment the finest of the lot took flight upwards, apparently out of sheer gaiety of spirits, only to be immediately attacked from above by a Kite, which swooped down upon it in a most abominably business-like manner—but the Hoopoe gave a twist and a turn and dodged that evil-minded Kite, when to my consternation, and still more I should imagine to the Hoopoe's, a Grey Crow dashed up from below. This was a mean manoeuvre, for he thought, "that bird shall be made mince-meat between me and the Kite, we'll sandwich him between us." That Hoopoe deserved to live, for with another twist he fled into an acacia tree close by, and put up his crest at his enemies, in much the same manner as a London street arab would put up his hand to his nose on escaping from the claws of two Policemen. It was warm work for a minute or two.

As to those Grey Crows, they are real villains, for the next day two of them did their utmost to work their revenge, actually daring to hop with a great sidelong awkward hop on to the balcony, where, whilst one worried those poor Hoopoes on one side of the cage, the other seized a wing and a tail that for a moment had showed itself between the bars, and with a savage tug tweaked out a large beak-full from both. This attack I witnessed from my bed-room window, and those Crows, although they saw me, knew perfectly well that they would have time to carry out their wicked designs, before I could dash on to the balcony. It was fortunate for them that I couldn't get at them!

By the time that the Hoopoes were thoroughly hungry, one after the other flitted across the street and returned to safe quarters.

With much perseverance they were brought safely to England, where, as soon as the warmer weather came, they were placed in a small outdoor aviary. After a week or so I ventured to open the door and let them fly loose in the garden, and it was the prettiest and most uncommon sight to see seven Hoopoes flitting along the terrace towards me when they spied the tin of mealworms in my hand. Gradually they found their way all round the garden immediately surrounding the house, but, curiously enough, never seemed to trust themselves out of its sight.

Very quickly their natural instinct taught them to prod with their long bills in the turf of the lawn, and it was very interesting to notice their movements when a grub was felt an inch or two under the surface, shewing that the tip of the bill must be extremely sensitive for this purpose. When once a Hoopoe commenced to dig with quick movements, a large brown grub was almost sure to be pulled out, when it was knocked about for a few seconds and then swallowed, the bird throwing his head back, opening his bill, and chucking the insect down his throat.

People's astonishment was great when I walked them round the garden. If the Hoopoes were out of sight I used to whistle, and almost immediately they would come flitting to within a few yards of me, erecting their crests as they settled, and then running quickly along with their short little legs, their heads nodding as they ran. They were most charming pets (I say 'were,' for alas, they are all dead !) for they seemed to have no fear, and with the full liberty of wild birds, were absolutely tame.

The housekeeper used to feed them from the window of her room, and they would go in and out there at all times of the day, sometimes if the lattice was closed, tapping at the panes with their bills. Why they died is a mystery to me, for they all collapsed before September was out, and had in the meanwhile had every privilege : magnificent weather, full exercise, natural food as well as ants' eggs, mealworms and raw meat when they needed it ; and yet as each one moulted their skin seemed to be attacked by a sort of scurvy, and the new feathers dropped out when about half grown and when still to a great extent in the quill stage.

One or two of them had fits into the bargain, and all seven died. It was most sad, but in spite of their loss, the gain has been great. Whilst they lived they were most beautiful and

interesting. But if I ever had the pleasure of another trip up the Nile, I don't *think* I would ever try to bring home any more, and I don't know that I advise others to do so.

Yet there is a beautiful Hoopoe (unless quite lately dead) in the Western Aviary of the Zoological Gardens in Regent's Park, which has moulted successfully, and which, when I saw it in October, looked extremely healthy.

THE FOOD OF BIRDS IN CAPTIVITY.

By H. R. FILLMER.

A complaint has been made that the *Avicultural Magazine* is not sufficiently instructive to beginners, but assumes a greater practical knowledge on the part of its readers than they actually possess. In order to do something to meet this objection I here present our less advanced readers with some notes which, whatever their faults, have at least the merit of being elementary.

Without any disparagement of the ornithological side of aviculture, it may be justly claimed that the branch of our science which is most peculiarly our own is the proper treatment of birds in captivity. A knowledge of specific and sexual distinctions, classification, and nomenclature, while of great value to the aviculturist, is a thing which he shares with the cabinet ornithologist and the collector, and is scarcely of the essence of aviculture. But a knowledge of how to keep birds, in cage or aviary, in health and happiness, belongs to the aviculturist alone and is his especial pride. Now, perhaps the most important branch of the great subject of "treatment" is—food: so that no apology is needed for the presentation of these notes upon it.

Of all the vices to which the writer on aviculture can fall a victim, that of consistency is the most dangerous. Therefore, if I herein set down anything which is, or appears to be, contradictory of what I may have said before, I shall not try to explain (or explain away) the inconsistency. There are some writers who are like the man who, having by a slip of the tongue, stated his horse to be fourteen *feet* high, remarked, on the mistake being pointed out, "Did I say 'feet'? very well, then I will stick to it." I am not going to be like that. I try to live and learn, and I find that I often have to acknowledge myself to have been in the wrong in the past. Aviculture is yet in its infancy, and I believe that we shall very likely soon stumble upon some great discoveries, which will revolutionise all our ideas about bird

food. The food which I here recommend is, therefore, simply what I, in this year 1899, have found and believe to be the most suitable—it may not be quite the same as what I should have advised a few years ago, and perhaps next year I shall advocate something different. I am afraid this sounds rather egotistical and conceited—but I can't help that.

For the purposes of my subject, it is necessary to classify birds in a frankly unscientific fashion, and I propose to deal with them in the following groups. (Only birds which are properly cage-birds will be treated of.) (1) Small seed-eating birds. (2) Doves. (3) Seed-eating Parrots and Parrakeets. (4) Fruit- or pollen-eating Parrots. (5) Fruit- or pollen-eating birds other than Parrots. (6) Insectivorous birds. Of course some of these groups overlap each other.

I.—SMALL SEED-EATING BIRDS.

This group comprises finches, grosbeaks, buntings, waxbills, grassfinches, mannikins, and weavers—in fact, all the “finches” in the widest sense of the term. The feeding of all these is simple, and it is not possible to go very far wrong.

Canary seed is the most generally useful of all seeds, and all seed-eating birds may be supplied with it *ad lib.* It is, unfortunately, often of very inferior quality. The grain should be full and bright, free from shucked seeds, dust, and the *excreta* of mice. The beginner should buy from a respectable bird-dealer, rather than from a corn merchant—for the dealer knows good seed when he sees it, and will, for the sake of his own birds, have no other. On the other hand, highly respectable corn merchants will sometimes supply very inferior bird-seed, not with any intention of cheating, but because they cannot understand that the quality of “mere bird-seed” can be of importance.

White millet is another very useful seed, but I do not consider it equal in value to canary seed. It is considered the proper food for “foreign finches,” though some of them seem to do better without it. I should not give it to Alario Finches, nor to any of the Siskins, and I should, as far as possible, encourage all birds to eat canary seed in preference. I have known cases in which it clearly disagreed with birds, which kept in perfect health on canary seed. I should not give it to any birds which were not accustomed to it and were thriving without it. I should, generally speaking, supply it to all Waxbills, Grassfinches, and Mannikins, but I should take care that they always had plenty of canary seed also. White millet is almost always of uniform

good quality, but the whiter it is the more readily it is eaten by the birds.

Brown millet is absolutely useless—I never knew any birds that would eat it.

French millet is sold in two forms (1) Spray millet and (2) so-called “Indian” millet. These are the produce of two very closely allied, but distinct, plants. Their food value I believe to be exactly equal—and the only difference which I can detect in the grain is that that of the “spray” form is slightly larger and more rounded. I think the “spray” is really the best, as the birds enjoy pulling it to pieces: nevertheless, I always use “Indian” myself, because it gives less trouble. French millet is an excellent seed, and may be freely supplied to all birds. It is most useful for newly imported Waxbills and Grassfinches, and for many species when they have young in the nest—the aviculturist should never be without it. Unfortunately, it is a rather expensive seed.

In each of my aviaries which contain seed-eating birds, I keep a constant supply of canary-seed, white millet, and Indian millet, each in a separate pan.

German rape is a good seed for such as will eat it, and it is well to supply a pan of it in the aviary if any birds will take it. It is very valuable for many British finches, but none of the *Ploceine* finches will touch it. Care should be taken that it is fresh, and free from mustiness.

Hemp seed is valuable, but requires to be used with great discretion. If crushed, almost all birds will eat it, and I think a little occasionally is good for most of them. Many delicate species (such as Gouldian finches) when newly imported, will be found to greatly benefit by a little crushed hemp.

Maw seed is useful for occasional use as a pick-me-up, and for checking diarrhoea—but it is extremely fattening.

Inga seed I have never used to any extent, and, although I doubt whether it is so dangerous as it is sometimes said to be, I should not care to add it to the regular dietary of any bird in my care.

Linseed also is a seed which I do not think much of—though a little will do no harm for a change.

As a rule, I think finches are better without mealworms, but buntings and cardinals require a few.

Some kind of soft food, containing egg, I believe to be beneficial to most finches—and I find them less liable to baldness

when they have access to it than when restricted to a seed diet. Preserved yolk of egg, mixed with powdered biscuit, makes a good soft food for finches.

A plentiful and regular supply of green food, especially in the summer, is of the greatest importance.

II.—DOVES.

The smaller species appear to do well on canary-seed and the two kinds of millet, with a few hemp seeds occasionally. Dari is recommended. And the larger species would be fed much like fancy pigeons.

III.—SEED-EATING PARROTS AND PARRAKEETS.

The larger Parrots do well on a mixture of canary, hemp, oats, and crushed maize—but they should have some fruit almost daily. Boiled maize is an excellent thing, and might be given once or twice a week—but it is a bother to prepare it, and care must be taken that it does not turn sour. A piece of biscuit is good for a change, and so is a very little milk sop.

The smaller Parrots and Parrakeets will live mainly on canary seed, with some French millet and occasionally a little hemp or a few oats. They also should have fruit, and plenty of green food.

IV.—FRUIT OR POLLEN-EATING PARROTS.

Practically, these consist of the Lories and Lorikeets, and the Hanging Parrots. I have no personal experience of the Hanging Parrots, but should imagine that they require the same treatment as Lories.

The true Lories (*Eos* and *Lorius*) certainly differ in their feeding from the Lorikeets (*Trichoglossus*). Lorikeets will eat seed much more readily than Lories, and do not require such very soft food. The principal food for all of these, should be milk sop, made by pouring boiled milk upon powdered biscuit. I use Spratt's fine "white biscuit meal," as it saves trouble. For Lories, the sop should be quite sloppy, and those of the genus *Eos* seem to like it especially liquid. For Lorikeets it may be firmer. It is scarcely needful to say that milk sop must be made fresh every day, and the pan containing stale sop should be removed from the aviary—but I have never found it necessary to make it *more* than once a day, even in the hottest weather. No sugar should be added to the sop. Besides sop, these birds should have fruit daily, and I usually give raw apples—but bananas and oranges are liked equally well. Many of the Lories

will at first refuse anything so hard as raw apple, and for these there is nothing better than stewed apple well sweetened, or banana mashed up in orange juice. In the summer, green food may be given. Dates and dried figs form a useful addition to the dietary. The dates may be given as bought, but the figs should be stewed and afterwards mashed. Canary seed may be supplied, and will be occasionally eaten by some of the Lorikeets. All these birds resent a sudden change of food, and any one acquiring one of them should ascertain how it has been fed, and supply it at first with its accustomed food however unsuitable it may be, until he can persuade it to take to the diet here recommended. Lorikeets will often eat nothing but canary seed, when they have been fed upon it for a long time. (I believe that "Blue Mountain Lories" are almost always so fed on the voyage from Australia). On the other hand, some Lories will refuse all solid food, and have to be fed at first on sop made so liquid as to be little more than boiled milk, and orange juice.

V.—FRUIT- AND POLLEN-EATING BIRDS OTHER THAN PARROTS.

This group includes (besides others) the Tanagers, Bulbuls, Honey-eaters, Sugar-birds, and some of the British Warblers (such as the Blackcap). All these birds require some good insectivorous food as a staple diet, and a regular and liberal supply of fruit. I propose considering the question of insectivorous food under the next heading. The fruit used may be either apple, pear, banana, or orange. Some birds will like one kind best and some another—but apples are not suitable for the weak-billed species, unless they are very soft. Milk sop is a useful addition to the food of these birds, but it should be given with caution and discretion. All of them will eat it greedily, and there is a danger, if they be freely supplied with it, that they will eat it to the neglect of other food. It is undoubtedly somewhat relaxing, and on the whole I should advise its being given not oftener than every other day, and then not more of it than will be eaten up within five or six hours. The sop should be made with boiled milk, be fairly stiff, and no sugar should be added. I attach a good deal of importance to the sop being *unsweetened*, because the addition of sugar adds considerably to its relaxing qualities. I am not a believer in mealworms for birds of this sort, though a few do no harm to the larger species. Little things like Zosterops are, I fancy, better without mealworms, except perhaps when moulting.

VI.—INSECTIVOROUS BIRDS.

There is no point of aviculture upon which so much difference of opinion and of practice exists as upon the question of what is the best insectivorous food. All are agreed that ants' eggs should form one of the chief ingredients, but that is the only point upon which agreement exists. Without disparaging other mixtures, I will give the formula for a food which I have used for some time with great success. It is as follows:—Equal parts, by bulk, of best ants' eggs, dried flies, Spratts' fine Crissel, and Spratt's fine Game Meal, rubbed up with lard, with some of Abrahams' Yolk of Egg added. For the more delicate birds it is better to double the proportion of ants' eggs and reduce the proportion of meal. I keep the food ready mixed in a tin, and about twice a week rub up a basinful with lard, afterwards adding the egg. It will keep good for a week or two after the lard has been added, and the birds can be made to eat up the last particle of it, so that there is no waste. I have no claim to be the inventor of this recipe, which was given to me by a well known member of the Council of our Society.

One of the chief merits of this food is that it does not fatten—the birds keep in good condition upon it, but seldom lay on an unnatural amount of fat. Some aviculturists fancy that if their birds are fat they must be doing well—there cannot be a greater mistake. Dripping may be used instead of lard, but I find lard more convenient. Some people use grated carrot, or mashed potatoes, instead of lard or dripping, but I do not recommend either, for they will render the mixture liable to turn sour, and make it necessary to mix it fresh every day and waste what is left from the previous day. The same applies to the use of fresh egg. There should be enough lard to make the mixture thoroughly greasy, for if too dry some birds will refuse it—on the other hand the lard must be well rubbed in, so that there are no lumps, and there must not be so much grease as to cause the food to cake. Some birds will not take very kindly to the food at first, but all soon get to like it.

They require, of course, live insect food as well, and this generally has to consist of mealworms because nothing else is purchasable. However, if blackbeetles or earwigs can be got, they should be preferred to mealworms. It is difficult to decide how many mealworms a bird should have, and I cannot venture to lay down a rule. It is certain that too many are almost as bad as too few. They should be given more freely during moulting than at other times. I think it will be found that if the insect

tivorous mixture mentioned above be used, fewer mealworms are required than when the birds are fed on some of the old-fashioned foods.

Curd cheese, made fresh daily, has been recommended as a food for insectivorous birds, and although I have never used it long enough to speak decidedly about it from actual experience, I believe it to be an excellent food when mixed with ants' eggs, etc. But it is a good deal of trouble to make, somewhat expensive, and will not keep, so that I scarcely think it will come into general use.

I believe that a very little milk sop, about once a week, is good for nearly all insectivorous birds which will eat it.

I have never known a little cooked meat, finely minced, to do any harm to birds, and I think it may often be given with advantage to many species.

THE RUFF.

(*Machetes pugnax*).

By CHARLES L. ROTHERA.

There is little doubt but that the most generally interesting birds in our small collection are to be found in the pool aviary. Of the Kingfishers I have already written (Vol. 3, p. 137) and the two prime difficulties connected with them are (1) difficulty of procuring a steady supply of live fish, for the birds will eat nothing else; and (2) the refusal of two to live together in amity, in which respect they are as bad as Robins.

But this year the great attraction of the pool has been the Ruff. For the greater part of the summer, we had no Reeve for him and were only able to procure one as he was losing his nuptial plumage, and very unfortunately she died during the moult and her place is still vacant. They are not very easy birds to meet with. For those who do not know the birds I may mention that they are about the size of a Partridge on longer legs and have a longer beak, the hen bird or reeve being altogether more slender and feminine in build and size. One great peculiarity of the birds is that no two of them are alike in colour or marking, so that it is next to impossible to attempt to describe them. Some are uniformly mottled with warm brown markings on a lighter ground, others are much more irregularly blotched, while still others have scarcely any markings at all, but are of a dark black-brown all over. The distinctive feature which gives the name to the bird is the adornment which he puts on

as the breeding season approaches, and wears till early autumn, when he loses it in the general moult. It consists primarily of a growth of feathers from the sides of the face and neck, which hang down over the neck and breast like a circular-bottomed pendant, over which the bird has considerable muscular power and can raise or depress, contract or expand, at will. In addition to this, two fringes grow on the brow like large eyebrows, and stand up at an angle after the style of a Mephistopheles: these, too, can be raised or depressed at will. The colour of these adornments varies as much as does the body colour of the bird: a dark brown-bodied bird may have a white frill or ruff, while a mottled bird may have a cream-coloured one, and so on. In the first bird we had a year or two ago, the eyebrows were bright gold like braid or thread; this year's bird had them of a somewhat darker colour than the general tone of the head, and they were not conspicuous except when raised.

But the possession of these adornments does not satisfy our gallant: he has to show them off, and his antics in doing this are most amusing, and drew crowds of featherless spectators to the pool side. Not having a mate of his own, he made up to two Knots and a Godwit, and incessantly displayed his attractions to them. This he did by running in front of them, or flying over and alighting just before them, and then lying flat on his breast, putting the end of his beak vertically down to the ground, raising his ruff all round his head, and elevating his eyebrows in a somewhat fierce-looking manner. When first seen in this position, perfectly motionless and his head completely smothered up, he might easily be taken for a dead bird, and he retains the position for a considerable time—it seems a minute or more to anyone watching him—when he raises himself and runs or flies again to a position in front of his friends, and squats as before, always putting the point of his beak down to the ground and assuming a most peculiar attitude. I have been quite unable to conceive the object of all this manœuvring, (a) for none of the other birds, not even the reeve when she joined him, seemed to be the least impressed by it, and yet from the pertinacity with which he persisted in it, he evidently expected some important result. He never does it now he has shed his ruff.

The birds are fond of paddling about in the shallow water among the rushes round the marge, and live well on minced raw

(a). Undoubtedly to show off his display to the female. The females of all birds where the male makes a marked display are apparently unconscious of the trouble the male is taking to impress them. Note a Peahen when the cock is displaying; also the female Great Bustard.—E. G. B. M.-W.

beef mixed with soaked bread and mashed potato, with live earthworms now and then, and mussels.

It is said that in their natural haunts the birds congregate in flocks, and the Ruffs spend a great deal of time in the breeding season in fighting—hence their specific name, *pugnax*; but with only keeping one pair, I cannot vouch for the truth of this.

BIRDS I HAVE KEPT.

By E. E. SMITH.

The first bird I ever had was a hen Bullfinch, which I had for nearly nine years, in perfect condition and very tame; after being caged all this time she started laying, and, in less than a week, she laid five eggs on a rough heap of chickweed and flowering grass which I had given as green food.

Thinking that even at that advanced age she might breed, I procured a cock Goldfinch from a friend, but although the Finch did his best to charm her with his song, and to feed her, she would accept none of his attentions.

During twenty-three days she laid twenty-one eggs, all perfectly shelled and proper Bullfinch colour, but very small.

The Goldfinch, finding his attentions were unwelcome, commenced driving her about and eventually killed her, after plucking all the feathers from her head and neck. Altogether I kept this bird about ten years, which I consider a good age for a Bullfinch caged.

The Goldfinch got stuck in the moult this autumn, and died after living in perfect health for five years.

The only other British birds I have had were a Robin, which makes a nice pet, and a cock Siskin, which I have at present, in good condition and as tame as it is possible for a bird to be; he has cage-moulted three years.

My first interest in foreign birds arose from a visit to Belle Vue Gardens, Manchester, where I was greatly pleased with a mixed collection of Cockatiels, Budgerigars, Java Sparrows, and most of the commoner sorts of birds, together with several pairs of Baltimore Orioles, which had nests of wonderful construction, and to judge from the noise inside the nests, most of them had young; though possibly the hens were inside and making all the noise.

Seeing an advertisement in the *Exchange and Mart*, "Small Foreign birds, 12/- per dozen," I bought a dozen, and

received the following birds in the finest possible condition—pairs of Cordons Bleus, Orange Cheeks, Grey Waxbills, Bronze Mannikins, Combassous and two Orange Bishops (both turned out to be males), these I kept in a large cage built in a recess in my shop. The cage is 6ft. high, 4ft. wide, and 2ft. deep.

I soon lost the Combassous, probably because it was too cold for them when they started moulting; but the others always seemed happy and contented.

I was so pleased with my success, that I kept adding to my stock, until I had about sixty birds altogether. I then turned all the lumber out of an attic, and made an aviary of it in the following simple manner.

The window, fortunately, was a very large one facing south, so I fastened wire netting ($\frac{1}{2}$ in. mesh) over it on the inside, so that I could open it for ventilation; it was a fortunate thing for me that I did so, for one of the sheets of glass was blown out during a gale, and but for the wire I should have lost all my birds. I then covered the floor with oilcloth so that I could wash the dirt up easily, and then screwing some large branches to the floor, the place was complete. In this room for several years I kept the following birds—King, Pennant's, and Bauer's Parrakeets, all males; a pair of Brown-throated Conures, a pair of Quakers, a hen Blossom-head, four pairs of Budgerigars, two pairs of Blue-wings (Passerine Parrakeets) one pair Madagascar and one pair Red-faced Love-birds. I also had Java Sparrows, Zebra Finches, all the common Waxbills; Nuns; Orange, Oryx, Napoleon, and Black-faced Weavers. The only casualty I had from fighting was after one of the Blue-wing hens had died, when the males fought for the other, and one sent his beak clean through the skull of the other, killing him instantly. Most of these birds bathed all the year round, some several times a day, and although I never had artificial heat, I rarely had a death.

Many of these birds were tame enough to eat from my hand, and the Weavers built beautiful nests, and would go on building even while I was watching them, they were much tamer than they were in a cage.

Besides these, I have had Nonpareils (I could never keep these long, although I provided plenty of ants' cocoons and mealworms. Do they require heat?) Cockatiels, Diamond Sparrows (very pretty birds) Parson Finches, Gouldian Finches, Barraband's Parakeets, Blue Mountain Lories, White-eared Conures, Rosellas and a Patagonian Conure (I only had a week

of Pat. he nearly screamed the house down) (*b*). I had a nice Blue-fronted Amazon, a fair talker and very tame, he would come to my hand anywhere indoors or out.

I have, at the present time, a fine Masked Parrakeet, very tame, a Blossom-head, pair Peach-faced Love-birds, beauties (now in my large cage I mentioned before) pair Parrot Finches, pair Black-headed Gouldians, pair Long-tailed Grassfinches, cock Lavender Finch, all caged separately; and in a large flight cage I have fifteen small birds, including Silverbills Orange Cheeks, Grey Waxbills, Cordons Bleus, Avadavats, Bronze Mannikins, and a cock Golden-breasted Waxbill.

I think amongst all the birds I ever kept, the following are my favourites.—Masked Parrakeet, King Parrakeet, Barraband's Parrakeet, Parrot Finches, Long-tailed Grassfinches, Cordons Bleus, and Avadavats; the cock Cordon is a splendid bird, and to see him making up to the hen is a most amusing sight; he gets a piece of grass or sometimes a plantain stalk, and holding it in his beak by the extreme tip of the stalk, he shuts his eyes, and sticks his tail at right angles to his body, and sings and dances in fine style.

The Avadavats are splendid little birds although so common, and have a pretty little song.

By the way, I have never seen the Orange-cheek Wax-bill credited with a song; both my males sing every night, just at dusk; they stand with their necks outstretched and their tails waving quickly from side to side.

I intend, next year, to go in for Tanagers if I find sufficient time to devote to soft-bills, and will then give my experiences with these brightly-plumaged birds.

P.S.—I have had eggs from many different species, but have never reared a young one, owing to the birds being mixed together; the Bronze Mannikins have eggs at present, but the Cordons Bleus are in their nest all day, so that I expect the eggs are all broken; I have not looked.

ZOOLOGICAL PHOTOGRAPHY.

We have lately been favoured with an inspection of a charming portfolio of photographs taken by the "Zoological Photographic Society." We find the name of a prominent mem-

(*b*) Had a little more patience been exercised with the Patagonian Conure he would probably have quieted down. I have had one over seven years, and do not find him generally noisy, he screams at unauthorised visitors, and at dogs, till he sees that the attention of somebody is called to them.—O. E. C.

ber of our Society among the artists, and many photographs both of single birds and of groups of birds are among the clearest and most attractive. We are informed that the Society is "open to receive one or two new members who are desirous of devoting their photographic energies to zoological subjects."

The Secretary is Mr. Charles Louis Hett, Springfield, Brigg.

ZOO NOTES.

By J. LEWIS BONHOTE.

III.—NOVEMBER.

Nov. 4	1	Cardinal Eclectus— <i>Eclectus cardinalis</i>	Parrot House.
	1	Grand Eclectus— <i>Eclectus voratus</i>	" "
	1	Mealy Amazon— <i>Chrysotis farinosa</i>	" "
		South America.	" "
" 7	2	Cardinal Eclecti— <i>Eclectus cardinalis</i>	" "
		Amboyna	" "
	1	Cardinal Eclectus— <i>Eclectus cardinalis</i>	" "
		Bouru.	" "
" 8	3	Swans— <i>Cygnus olor</i>	Duck Ponds.
" 9	2	Brazilian Caracaras— <i>Polyborus brasiliensis</i>	" "
		Brazil.	Kites Aviary.
" 13	2	Schalows Touracous— <i>Turacus schalowi</i>	" "
		Benguela.	Parrot House.
	4	Cape Turtle Doves— <i>Turtur capicola</i>	" "
		South Africa.	W. Aviary.
	1	Vulturine Eagle— <i>Aquila verreauxi</i>	" "
		South Africa.	E. Aviary.
	1	Tawny Eagle— <i>Aquila naevioides</i>	" "
		South Africa.	Vulture Aviary.
	1	Cape Crowned Crane— <i>Balearica regulorum</i>	" "
		South Africa.	Cranes' House.
	1	Lucan's Crested Eagle— <i>Lophotriorchis lucani</i>	" "
		South Africa.	Vulture Aviary.
" 14	1	Gannet— <i>Sula bassana</i>	E. Aviary.
		Oxfordshire.	" "
" 15	4	Lesser Pin-tailed Sandgrouse— <i>Pterocles exustus</i>	" "
		Arabia.	W. Aviary.
	1	Black-headed Partridge— <i>Caccabis melanocephala</i>	" "
		Arabia.	" "
	7	Cape Doves— <i>Æna capensis</i>	" "
" 16	1	Yellow-headed Couure— <i>Conurus jendaya</i>	" "
		S. E. Brazil.	Parrot House.
" 20	1	Chaplain Crow— <i>Corvus capellanus</i>	" "
		Persia.	Crows' Cages.
" 21	2	Red-backed Buntings— <i>Emberiza rutila</i>	" "
		Japan.	W. Aviary.
" 22	1	Banded Parrakeet— <i>Palæornis fasciatus</i>	Parrot House.
" 29	2	Ornamented Lorikeets— <i>Trichoglossus ornatus</i>	" "
		Moluccas.	" "
	1	Banded Parrakeet— <i>Palæornis fasciatus</i>	" "
		India.	" "

2 Undulated Grass Parrakeets—*Melopsittacus undulatus*, var.

Australia.

” ”

1 Lapwing—*Vanellus vulgaris*. Europe.

Fish House.

Snow and frost—such were the conditions under which my monthly visit to the Gardens was paid, and I must crave indulgence on that account for my notes being somewhat scanty.

In the Western and Eastern Aviaries all the birds were shut in, and therefore crowded, making observation difficult. The Lesser Pin-tailed Sandgrouse, seemed to be settling down well into their new quarters; but the Japanese Buntings I was unable to see. In the Eastern, or rather Pelican, Aviary, a fine adult Gannet was to be seen knocking in vain for admittance at the door of the Pelican House. These birds are most interesting in confinement, where they become very tame, and follow their keeper like a dog; their chief drawback is their insatiable appetite, and as they feed solely upon fish, are rather expensive pets. The remaining place of interest is now the Parrot House, and, for once in a way, it was the most comfortable; the new arrivals include, as usual, several Eclecti, which were in only fair condition, some of them being rather travel-stained.

The greatest rarities were a pair of Schalows' Touracous, on which Mr. Tegetmeier wrote a short account in the *Field*, of 2nd December (p. 891). There are several species of this group, all of which closely resemble each other; they are about the size of small Pigeons, and the general colouration is green with purple hues. They all have a large crest on the top of the head, which, however, differs in shape in the various species. They are nearly allied to the Cuckoos, feed entirely on fruit, and are confined to Africa. Three species are at present represented at the Zoo: Shalows', Great-billed, and White-crested. The chief point of interest about this group is the colouring of the primaries, which are of a bright and translucent red. This colour is due to a pigment known as Turacin, which is very soluble in water and is said to perceptibly tint it when they take a bath.

I notice that a slight error was made in my last notes, and that the bird described as the Uvœan Parrakeet was in reality the Orange-shouldered Parrakeet, which was figured in the *Avicultural Magazine* not long ago. The Uvœan Parrakeet is a much larger bird, having a black back, with broad yellow margins to all the feathers. The head and wings are bluish and the rest of the plumage is a light yellow.

In Memoriam.

For the second time during 1899 our Society has to mourn the loss of one of its Vice-Presidents. Our readers will probably have seen in the obituary of *The Times* the death, on Dec. 10th, of LOUISA MARY, Baroness Berkeley, wife of Major-General Gustavus H. L. Milman, late R. A. The writer of these lines, who, for over a quarter-of-a-century, had enjoyed the friendship of Lady BERKELEY, can testify to her true love and care for feathered creatures.

O. E. C.

CORRESPONDENCE.

NOTE FROM THE EDITOR.

I am anxious, in an early number which appears under my editorship, to explain the reason which prompted me to undertake this responsible office.

For five years the Magazine has been conducted with much success by two of the founders of our Society. To very many members (I know well), to myself among them, it has at once been a source of much pleasure and has conveyed valuable knowledge. Without it I doubt if our Society would long exist. On Mr. Fillmer's regretted resignation, for months no successor could be found to undertake the onerous work which he had done, as at once Secretary and Editor, and it seemed as if the affairs of the Society must necessarily be wound up. To many of us this would have been a source of much regret. The numbers of the Society have always been on the increase; this, and the fact that subscriptions are, on the whole, regularly paid, seemed to me evidence that the Society was fulfilling the objects for which it was founded.

Under these circumstances, I offered to be co-Secretary if another member would share the work. Eventually arrangement was made that Mr. Bonhote should undertake the secretarial work, and that I alone should edit the Magazine. I undertook to do so, fully conscious of the fact that I have neither the knowledge of aviculture, nor the acquaintance with aviculturists of my predecessors, simply, as it seemed to me, to save the Society from collapse.

There are one or two points to which I venture to call the attention of members.

1. It is necessary that "copy" intended for one month's Magazine should reach me not later than in the earliest days of the previous month. My predecessors both lived near the Printers and in a town with great postal conveniences. I live 200 miles from the Printers; have but one post on week-days, and none on Sundays. That the "proofs" may be duly forwarded for correction to the authors, and to all the members of the Executive Committee, it is absolutely necessary that they should be in type early in the month.

2. I venture to ask for contributions from a still wider circle among our members than have hitherto written for the Magazine. On re-reading

the programme of the Society's work, which appeared in the first number, I am struck with the good sense of a passage, which I reproduce—"Those who are not prepared to write a formal article, have generally met with some little facts or fancies in their avicultural experience, which will be of interest to others, and if they will note them down and send them to the Editor, they will place the rest of the Society under an obligation. We want the benefit of the practical experience of all." The late Editor at one time gave us an interesting column headed "Avicultural Small-Talk." I should like to revive this column, if members would send me scraps of news on such points, among others, as birds which they winter out of doors, dates at which they turn out more tender birds in Spring, and house them again in Autumn; dates at which various species nest both indoors and out of doors.

3. We have lately had fewer descriptions than formerly of the aviaries and birdrooms of members. My experience is that such descriptions have great interest for aviculturists, and often lead to pleasant visits and personal acquaintance. I shall be grateful to those who will send me accounts of their arrangements for their birds, even though the latter be ever so few.

O. E. CRESSWELL.

THE BICHENO-ZEBRA FINCH.

SIR,—My description of the hybrid in the Grassfinch class at Ballham does not appear to be accepted as correct. There is, however, no doubt whatever that the bird is exactly as described in the catalogue—a male hybrid bred from a male Bicheno finch and a female Zebra finch. If those interested in the subject will refer to *Die Gefiederte Welt*, Nos. 1 and 2, 1898, they will find a long article by a prominent aviculturist, in which the production of this hybrid is fully described. My bird is one of the brood there mentioned. The sex of the hybrids could not be distinguished by the plumage, and none possessed the chestnut markings of a male Zebra finch.

I received the bird direct from the breeder, who informed me that it was a male, and that fertile eggs were produced when he mated it with a female Bengalese. It has a continual call of four syllables.

The same gentleman sent me a hen Black-rumped finch as a companion to the hybrid. This differs from the ordinary Bicheno finch, in having a black rump instead of a white one. The distinction might easily be overlooked, but if the wings be parted the difference is very striking. It is claimed to be a distinct species (c).

J. W. HAWKINS.

MOORHENS AND YOUNG FISH.

SIR,—At page 39 of the December number, Miss Brampton raised a question of no limited importance. Assuming that the present generation of Moorhens are like their forefathers, and that they have the same tastes all over the country, I can say positively, from many years' observations and numerous experiments, that Moorhens eat baby fish very freely. Even

(c) It will be remembered that I figured this hybrid in January, 1898, from a skin lent to me by Mr. Abrahams, and the illustration and description are reproduced in "Foreign Bird Keeping." I compared them with the living bird at the Palace Show, and was pleased to find little difference between the two.—A. G. B.

in deep ponds, etc., without shallows, they manage to catch a good number, mostly along the margins, and certainly devour all they can catch. But in ponds with shallows and suitable reeds, Moorhens will sometimes devour every baby fish hatched out, entirely keeping down the stock of fish.

In order to verify my suspicions as to the marauders which spoiled my early piscicultural attempts, and to test their voracity, I have dyked off little shallows at the edges of the ponds, near to the shallows systematically visited by the Moorhens, stocked them with young dace, etc., and on the following morning have invariably found every fish gone. The bottoms of the enclosed parts, and the dykes, would be so covered with the prints of the Moorhens' feet that an unmarked square inch could hardly be found I have had many scores taken in a single night of by no means small fry. Nevertheless, the newly hatched fish are those which are most easily picked up by the Moorhens.

In some ponds, however, it is the insect larvæ which devour the spawn and stop the increase.

REGINALD PHILLIPPS.

EGG-BINDING IN BIRDS.

SIR,—I have recently tried a treatment for egg-binding which was recommended to me by a German breeder of Canaries, with the greatest success, and as it appears to be different to that practised in this country, perhaps some member, who may have a bird suffering in this way, might be interested to hear of my experience.

Two of my Gouldian Finches paired, a cock Black-head and a hen Red-head. They made a nest in a cocoa-nut, and she laid one egg a few days ago. Two days later, I found her in a heap at the bottom of the cage, and apparently dying: her eyes were shut and she was panting very much. I took her out and examined her, and saw what was the matter. I held her in my hand on her back under a *cold* water tap, gently turned on, for quite a minute, letting the water run down towards her tail. Then I wrapped her, all but her head, in a piece of *very* hot flannel; she lay like this in my lap, too ill to resist. In an hour's time, as there was no result, I repeated the process—as I was told to do—and in less than ten minutes the egg came away, and next morning she was hopping about gaily. Yesterday the same thing happened again, and I treated her in the same way, with the same result, and to-day she is looking as well and brisk as possible.

Now I have separated the hens for the present, for evidently they are not in breeding condition. I notice that the beaks of all the cock-birds have become white and transparent, with red tips—but only the beak of this one hen—all the others are quite dark.

Of this pair, I have had the cock since December, 1896, and the hen since April, 1897; her mate died a few days after I had bought them. They have both moulted three times—in April and May each year—and they are extremely tame.

If you think this account would be of any interest or use, I should be glad to hear the views of others; if not, please take no further trouble about it.

C. D. ROTCH.

THE SACRED KINGFISHER.

SIR,—In Dr. Simpson's notes on the Balham Show, he writes thus:—"A very remarkable bird was the Sacred Kingfisher, a bird whose unobtrusive brown plumage formed a curious contrast with a pair of wonderful deep-blue eyes."

That *Halcyon sancta* should thus be described, appears to me at least remarkable, considering that its plumage is deep-blue (which in certain lights appears green) and buff; and its eyes are a dark brown.

The only bird of this species shewn at Balham belonged to me; and, for reasons which I explained in a foot-note in last month's issue, this bird did not arrive at the Show until the evening of the opening day, and, I believe, long after Dr. Simpson had left. I can only imagine, therefore, that he had in mind, when writing this description, Mr. Fulljames' Bower Bird, which was in the greenish-brown plumage of the female and immature male, and which species *has* blue eyes. I think that this explanation is necessary, as it is surely rather hard upon the brilliant Sacred Kingfisher to describe its plumage as "unobtrusive brown." D. SETH-SMITH.

[The mistake which seems to have so mystified Mr. Seth-Smith, is very easily explained. My note referred to No. 523, described in the catalogue as a Sacred Kingfisher.—C. S. S.]

THE BLEEDING-HEART PIGEON.

SIR,—Noting what Mr. Seth-Smith rightly states respecting the colour of the eyes in the Satin Bower-bird (of which I have had a healthy pair since the 18th September last) it occurs to me that I have not put on record the fact that the eyes of the Bleeding-Heart Pigeon are not brown, as described, but are reddish plum-coloured. My hen died just after her moult, and I examined the eyes immediately after death. A. G. BUTLER.

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A NATURALIST'S NOTES IN ECUADOR.

By WALTER GOODFELLOW.

Perhaps there is no country in the world where birds abound in such numbers and varieties, as in Ecuador. At least, so I think who have just returned from spending two years there, and after wandering about among almost all other "birdy" parts of the globe. It is not the numbers alone that make it so interesting to the ornithologist, for it is also the home of the mighty Condor, the largest bird on the wing, to the smallest species of Humming-bird known, no larger than an ordinary sized bumble bee. Between these range endless varieties of birds of prey; the strange and little known Umbrella-birds; some ten or more representatives of the Trogon family; the two most beautiful of the three known species of the Cock of the Rock, *Rupicola sanguinolenta* and *R. peruviana*; Toucans galore, and bewildering numbers of Tanagers, Hangnests, Tyrants, and other birds strange or beautiful. So Ecuador is one vast museum of natural history, and the chief reason of this is its geographical position and its formation. Here we have a country situated right on the Equator, and divided down the centre in its entire length by the mighty Andes, embracing every variety of climate from perpetual snow to the sweltering heat of its unhealthy lowlands. Thus birds of some kind or another, find a congenial home at every altitude between these two extremes. And again, it is so inaccessible and thinly populated, that bird life holds undisturbed sway in its vast mountain solitudes, and its primeval forests, which reach from the coast, to an altitude of 10,000 ft. or more on the western side; then, skipping its immense central tablelands, start again on the eastern side of the Andes, and cover almost the whole of Brazil and tropical South America.

Myself and Mr. Claud Hamilton travelled from the Pacific coast, and, after crossing all the mountain ranges, journeyed for weeks on foot down through the damp, uninhabited, virgin

forests on the eastern side, until we reached the head waters of the Amazon. After staying for months among the wild Indian tribes there, we descended the Napo in dugouts, and so reached the Marañon, where we took boats for the remaining 4,000 miles down to Pará, having thus crossed the entire Continent.

It is from notes and observations made on this journey, a journey made solely for the purpose of taking toll from the feathered inhabitants of the country, that I shall endeavour to write a few articles which I trust may prove of interest to some members of the Avicultural Society.

There are many things connected with bird life in the tropics that would surprise some of our aviculturists at home. For instance, who would not, in his mind's eye, associate Humming-birds, nature's living jewels, with sunny flower-bedecked glades? It is true that numbers of them are found (and some beautiful ones, too) in the hot forests of tropical America, but they are much more numerous, and far more beautiful in the higher Andes; some of the loveliest of all being found at altitudes of between eight and thirteen thousand feet, whilst the little Black Hummer with a sapphire throat, known as Jameson's Humming-bird, I have seen, when camping out on the volcano of Pichincha, Condor shooting, flying past our tent in a heavy snow storm, with its mournful *twit, twit*, at an altitude of over 14,000 ft. I have noticed others of the same family sitting on the telegraph wires (apparently a favourite post of theirs) along the dusty roads in the central highlands, in the most prosaic manner possible, watching, perchance, for passing insects, darting into the air to seize their prey on the wing, and always returning to the same spot. It seems to be almost a general rule in Ecuador, that Humming-birds which make their home in the dense forests, lack almost entirely the beautiful iridescence peculiar to most members of the family. But if they lack colour, many of them have peculiarities of form, as for instance, the wonderful curved bill of the *Eutoxeres aquila*, the saw bill of the *Androdon equatorialis*, and the elongated tail-feathers of *Phæthornis symratorphorus*. In showing Humming-birds' skins to friends at home, one always hears the remark, "How lovely they must look flying about!" It is true they do look pretty with their graceful poses, but their wonderful colouring is generally then almost entirely invisible, and certainly not seen to proper advantage, many species looking much the same as one another in freedom, but vastly different when held in the hand and turned to the right light. But however fascinating these birds are, I must leave

them, for as they can unfortunately never become denizens of our aviaries, they will not possess much interest for the aviculturist.

There are many beautiful Tanagers, notably the Blue-shouldered Tanager (*Compsocoma victorini*) whose home is in very temperate regions, where if mild during the day, it is very cold at night. There is also that singularly handsome Toucan (*Andigena laminirostris*) which inhabits a gloomy region, where we had sharp frosts nearly every night during the fortnight of our stay there. Real Gulls, too we found in numbers on the small solitary lagoons in the cold, devastated and uninhabited regions around the smoking cone of Cotopaxi, at an altitude of quite 13,000 ft., and perhaps 150 miles from the coast. These are points of interest in bird life, that people at home would hardly credit.

In looking over our collection of skins (comprising some 700 species, of which 130 are Hummers) I am at once struck with the fact that there are perhaps not more than a dozen of them I have seen in captivity at home; when scores of them would undoubtedly be easy to keep, and make delightful cage birds. We should imagine many of them if we saw them in the dealers' shops to be perhaps delicate and difficult to keep, when probably they would have come from some of the temperate regions of the Andes, and, as far as the climate would be concerned, could with ease and comfort pass the winter in our outdoor aviaries.

It is a misfortune that the Ecuadorian birds are so little known to us, and that the dealers do not endeavour to procure more birds for us from there. I am afraid, though, there are many difficulties in the way which would be hard to overcome. In the first place, live birds could not be shipped direct to our English ports, as it would be all but impossible to send them home all the way round Cape Horn; and the only other route available is *via* the Isthmus of Panamá, where, I imagine, live stock would meet with but scant attention from the railway officials. Still, our dealers might manage it by having agents in Panamá and Colon. Perhaps when the canal is opened all that will be changed, and many Ecuadorian birds, at present unknown to us by living specimens, will be quite familiar objects in our aviaries. Another great obstacle is the difficulty of communication from the coast to the interior of Ecuador. With the exception of the port of Guayaquil, there is no communication from any port direct to Quito, the capital, and

when the roads are in good condition, this is seven days ride. The traveller has to cross the Chimborazo Pass at an altitude of 14,200 ft., and, on coming up from the coast, the change from the steaming heat of the forests to the icy winds from the snows, is very rapid, and trying alike to man and beast.

The Ecuadorians seem to take no interest whatever in the bird life which surrounds them on every side, and it is quite the exception rather than the rule to find them keeping birds in captivity, and when they do, their ambition does not soar beyond a Parrot. However, at times in Guayaquil, birds are offered for sale in fair quantities, even if the varieties in vogue are limited. No doubt the European population has caused a certain demand for them there, and prices range very cheap indeed—1 real (2½d.) or 2 reals each seems to be the usual price for almost any bird. At the former price can be bought any number of the little Orange-flanked Parrakeets, and very tame indeed they all seem. These birds are exceedingly common in the neighbourhood, and can be met with almost anywhere in vast flocks. "Paviches" they are locally called. They commit great damage in the banana plantations, and bananas seem to be their staple food in captivity. In fact, when the natives keep a bird of any kind, they seem to think, and apparently rightly, it doesn't want any other food beyond bananas or oranges. I noticed almost the same thing in the East Indian Islands: the natives there, seldom gave a bird anything to eat beyond boiled rice, the only change being an occasional banana. Many animals which decidedly ought to have had quite a different diet, they kept on the universal rice also. How long they survived it I am unable to say, but in some cases they seemed healthy enough. Certain specimens of *Eclectus*, Purple-capped, Ceram, and other Lories which came under my notice, had lived entirely on plainly boiled rice, and sometimes a banana, for several years in some instances. I am often inclined to think that we give our birds far too many delicacies in captivity, and that many kinds would live with us longer than they do, on a plainer diet. I have noticed many times, in bringing birds home from abroad, that after one has weaned them off on to insectivorous and other foods, they have lost much of the brilliancy of colouring which they had when bananas formed their sole diet.

Another bird common all along the western side of Ecuador, and exceedingly common in parts of the province of Cauca, in Columbia, is the Red-faced Conure (*C. rubrolarvatus*). This very handsome bird seems to be not very well known with

us at home. There is one specimen at present in the "Zoo," and perhaps some members of the Avicultural Society may have others. These birds I saw offered for sale in Guayaquil at 5d. each, and no doubt at half that price they could have been bought. Being rather large birds, they show off their colours to advantage. I imagine, though, they must be rather noisy birds to keep, for they have a disagreeable shriek. They ought not to be at all delicate, for we shot specimens near the Volcano of Puracé, by Popayan in Columbia, at an altitude of over 8,000 ft. In passing through the little village of Carmen (still in Columbia) on our ride from Buenaventura to Cali, we saw the same birds in immense clouds, coming from their feeding grounds in the high mountain forests, to pass the night in the little sheltered valley below. Carmen could boast of little else in the way of vegetation but bamboos, which grew in great thickets, and every branch of these giant grasses was literally weighing down with its burden of *C. rubrolarvatus*. The noise was simply deafening! Those we shot by the acid waterfall of Paracé, in the month of May, 1898, were undoubtedly nesting in the crevices of the perpendicular cliffs there: for on the report of our firearms, numbers of them flew screaming from the holes and ledges around. I noticed, too, that the plumage of some was draggled, evidently by sitting on their eggs.

In both the hot and temperate regions of Western Ecuador, we collected a surprising number of members of the Tanager family. These were I think, with only one exception, of the most exquisite, and in some cases, remarkable arrangement and blending of colours. The exception was the Dusky Tanager (*Tanagra palmarum*). This bird is one of the very few birds which is found on both Eastern and Western sides of the Andes without any change in its plumage. It inhabits the hot regions on both sides up to an altitude of perhaps 1,500 feet. Seen in a good light, it is a dusky violet colour, with a lighter head of a greenish reflection, and the same shade occurs on the wings. It is about the same size as the Scarlet Tanager of Brazil, but of a somewhat different shape. I am writing of the bird without having a skin at hand to refer to, but if I remember rightly, it was impossible to distinguish the difference between the sexes apart, but seen together, the male was a little brighter. They strike one at once as being hardy birds, suitable for cage life. They are not frequenters of the dense forests, I do not remember that I found any of the Tanager family to be so, although many of them like to hide about in bushes, and some

of them always keep near the ground. They all delight in the more open country on the mountain slopes, or in sunny clearings near the forests, and pass their time in the fruit trees near human dwellings. A banana plantation is a sure attraction for the Dusky Tanager, if it happens there are ripe bunches about. After he has taken his fill he will sit, on the bare branch for preference, of some tree, and pour forth his quite melodious song. This song would be decidedly one of his great attractions in captivity, for it would do credit to almost any bird. Another Tanager inhabiting the same region but confined only to the Western side, is the Yellow-rumped Tanager (*Rhamphocæclus icteronotus*). If any member of the Society should have kept these birds alive, I should be pleased to be informed of the fact. This bird has charmed me in a way that no other bird has done, that I can remember. In shape, size and habits, it is the duplicate of the well known Scarlet Tanager. The whole of the plumage is of a rich black, resembling plush; but the rump is of the purest and brightest sulphur colour imaginable. In repose, it spreads the yellow back feathers over its wings, showing the colour off to the greatest advantage. Its song is about equal to that of the Scarlet Tanager. Around a hut, in a clearing in the virgin forests, among the Colorado Indians on the Western Side, rejoicing in the grand-sounding name of Santo Domingo de los Colorados, these birds were as common as Sparrows are at home. They also played great havoc among the fruit, but were also indefatigable in searching for insects among the trees, looking under every leaf. They were more persevering, in this respect, than any other Tanagers I saw, and were only out-done at it by the *Dacnis* family. In September and October 1898, these birds were still nesting in the thick orange trees around our hut. Although the nests were not more than from seven to nine feet above the ground, it was quite a difficult matter to get at them, for the trees were so thick and thorny, and the nests so well in the middle, that the only thing to do was to cut part of the tree away. The nests were rather large structures, composed of dry grass and dead leaves, and were not at all easy to find, although the trees stood well out in the open; they contained in some cases, five young ones, which resemble the females and do not attain mature plumage, until probably the second year, for young males in only half adult plumage, I saw with nests of their own. The female is brown instead of black, with the yellow of a less brilliant shade, and some of the same colour about the wings; again, not having the skins at hand to refer to, I am unable to give an exact description of it just now. This bird is replaced

in Columbia by a Red-Rumped variety, otherwise they are identically alike in all ways, and it is merely a matter of taste, which is the most beautiful.

After referring to one more member of the same family, I must leave the subject till next month, when I shall write of some Tanagers I kept out there for a time, and, if space permits, in the same article I will deal with the Hangnest family.

The last one for the present, is the Pale Blue Tanager *Tanagra cana*. Besides being very beautiful, this appears to me a most desirable bird to keep. It has such a wide range, that I think it must probably be known to, and have been kept by some of our members, although personally I have never seen it in England. This bird is exactly the same shape and size, as the Dusky Tanager, and like it, has also a melodious song. The true *Tanagra cana*, were also very common at Santo Domingo, and were to be found all day long among the ripe bananas. The same bird, but a little larger, we found in numbers throughout Columbia, where they were frequently kept in cages. At one house we lived in, in Cali, one was kept in a cage in the "patio," and although this was in the centre of a fairly large town, not a day passed without my seeing two, and sometimes three, wild ones together, of the same kind, sitting on the outside of the cage singing. These birds seem remarkably tame and confiding, and I never saw one but what would readily come and peck at one's finger through the cage. In Columbia, they generally seemed to be fed entirely on oranges, but in a few cases I noticed it was varied by a little soaked bread. As I said before, these birds have a very wide range, and if I mistake not, there are some four or five varieties, varying only in size or intensity of colouring, and extending throughout Central and Tropical S. America. I saw a number of these birds in an obscure dealer's shop at Cartagena, on the north coast of Columbia. As boats run direct between Liverpool and that port, it ought to be easy for dealers to obtain them for us. Those we shot at Santo Domingo, were remarkably blue, of a lovely pale blue all over, and the wing feathers and tail, of an almost sapphire hue. In other localities, we found them more of a lavender shade on the body. This bird is replaced on the Eastern Side of the mountains by one of exactly the same size and colour, but with beautiful white shoulders, more conspicuous in the male than in the female. This kind we first met with, at the foot of the Andes, at the head waters of the Rio Napo, and saw it again flying among the palms in the centre of the city of Pará,

5,000 miles further east. With its white shoulders, it looks very pretty flying. This is the *Tanagra Cælestis*. I noticed that both kinds were extremely fond of bathing.

(To be Continued).

MY DOVES' AVIARY.

By Miss R. ALDERSON.

Although my dove aviary is only a small structure, some 19 feet long by 12 feet wide, yet it has this advantage, that being close to the house I can see my birds from the windows on a wet day, without going out of doors. The north and east sides of the aviary are built against very high walls; on the west, the half inch wire netting comes right down to the ground; but on the south it is boarded up for two feet. On this last side there is a porch with double doors; the outer one of wood, the inner of wire. A great drawback to the aviary is the lack of sunshine, owing to the fact that so many trees are growing round it, but this does not seem to affect the health of the birds in any way. A shelter, about four feet wide, runs across the eastern end. It has wire netting in front to within two feet of the ground, and a door, generally left wide open, leads into the flight; a small wire-covered window faces the south. The shelter is white-washed inside, and fitted with perches and shelves.

The flight was added on about eighteen months ago. The ground was very difficult to build on, being filled with tree roots and several tree trunks had to be enclosed, as we were unwilling to cut them down.

Having got the aviary finished, I turned my birds into it; they seemed very happy, but I little knew that my difficulties had only just begun. My first enemies were rats. For some unknown reason,—unless it was the pulling down of some old buildings near,—they began to appear, and I found holes burrowed close to the flight. Though the foundations were on bricks, I had omitted to sink wire netting below, the tree roots making it almost an impossibility. There seemed no other remedy than to have the floor—which was a slope of bare earth, save for an asphalted walk that bordered the north side—cemented and tiled. Apart from keeping out the rats, I think this a great improvement, as the place can now be well brushed out every week with water, which escapes through a small outlet in the front, that is blocked up when not in use.

I was next troubled with cats. Though unable to actually get at the birds, they distressed them very much. Twice I found

many of the doves with badly cut wings, wounded against the netting, and drops of blood all over the floor. I consulted with the local joiner, a very practical man, who gave it as his opinion, that unless the mischief was caused by "an owl" he could stop it, though why he thought the *mere sight* of an owl could frighten the birds to such an extent I do not know. This joiner put up for me six ordinary striped canvas roller blinds, on the two open sides of the aviary. These blinds are drawn down every night at dusk, and to prevent them flapping are secured at the bottom with hooks and rings. The west blinds, being rather long and wide, have light laths of wood slipped across to hold them tight to the wire. I have found these blinds useful for other purposes than the one they were originally intended for. In winter they keep the place warmer, and afford protection in a strong wind, and if a nervous bird is nesting close to the wires, the blind in front of the nest can be kept lowered, and so ensure perfect quiet. As an additional precaution against the cats, I had wire netting fastened loosely round the aviary top, slanting outwards, in the same manner as that used in pheasantries to keep out foxes. The cats still frequent the garden at night, but I have the satisfaction of feeling my birds have never suffered since.

Later on, mice made their appearance, and worried the birds whilst nesting. A pair of Turtles (*Turtur turtur*), who had sat very steadily were disturbed. Both birds are very tame, so I caught the hen and put her back on the eggs, but could not induce her to stay. It was very pretty to watch these two birds while nesting, come on my hands to be fed. They did not mind my standing close to the nest in the least. Directly the one sitting left the nest to fly to me, the other would at once take its place on the eggs, and patiently wait until the first bird had finished feeding. The hen, whom I named "Jamie," mistaking her at first for the cock, loves to nestle in my hand and be petted, but though so affectionate, she is very jealous, and deeply resents me bestowing too much attention on any of the other doves.

Eventually, I got rid of the mice by catching them in little break-back traps, known as the "Out-'o-sight" mouse-trap. They cost about fourpence each, and I have found them *most effective*. To prevent any risk of the doves getting caught in them, I had each trap screwed into a small wooden box (which also protects them from the rain), part of the front end being cut out to allow room for the mouse to enter. The box lid can be

turned back to allow the trap to be baited, or re-set. As there is no earth in the flight it is impossible to plant any shrubs, so I have quantities of Scotch Fir branches wired to the walls, and to the enclosed tree trunks. In these branches are tied many little flat-bottomed baskets, that I make myself, for the birds to nest in, and which they much appreciate. One advantage of the fir branches is that they can easily be renewed when necessary.

In this aviary I placed Turtles (*Turtur turtur*), Aurita (*Zenaida aurita*), Indian Green-winged (*Chalcophaps indica*), Australian Crested Marsh Doves (*Ocyphaps lophotes*), and a pair of Necklace Doves (*Turtur tigrinus*). All these have stood twenty-six degrees of frost without any sign of discomfort. The remainder of my doves live in a heated aviary. One of them, a cock Diamond Dove, which has just finished moulting, has changed from a decided pale grey to quite a drab colour. My Indian Green-winged Doves are very uninteresting, they have shown no signs of nesting, their plumage is always ragged, and they spend all their time in the shelter, though I noticed in the summer they came out at night to roost in a box tree. The Necklace Doves I purchased from one of our members at the Palace Show, Oct. 1898. I think this species must vary a good deal. Those in the Zoo are larger and browner, and seem to lack the pretty blush-coloured breasts of my own birds. They are very gentle, and never fight unless attacked. The hen laid eggs every few weeks, but was much disturbed by the Crested Doves, which insisted on taking possession of every nest that the Necklaces made, and sitting diligently on the eggs, and being much the stronger birds of the two, the rightful owners were powerless to resist. This happened so often that I was obliged to move the Crested Doves into another smaller aviary. Here, after several nests of clear eggs, they reared one fine young one. They are intensely proud of it, and it still roosts between the old birds every night. I noticed one of the parents feeding it when it was quite a month old.

The next enemy of the unfortunate Necklaces was the cock Aurita Dove. This fine, but bad-tempered bird, used to hide regularly in the shelter, and when the Necklaces, but particularly the cock, came down to feed, he would dart out and drive them off, and then retire to his hiding-place, to await his next opportunity. This occurred many times, and seriously interfered with the rearing of the young Necklaces, but I got over the difficulty by placing pans of food and water close to the nest, using two spare nest baskets as brackets. The poor Neck-

laces were very grateful, and the cock at once began to feed. The Aurita, who was really a great coward, was no match for his opponent on the higher level. It was most amusing to watch the Necklace cock guarding the hen on the nest. He would take up his stand near her, and never for a moment take his eyes off his enemy, who would come creeping up to him through the branches. Suddenly there would be a raising of wings, and a sharp interchange of blows, and the Aurita would invariably fly off discomfited, leaving the victor triumphant. My doves are fed on *dari*, a little hemp and rice, and a good deal of wheat. They greatly enjoy cuttle fish bone, scraped with a knife into very small pieces and placed in their grit pot. This diet seems to suit them, for—I do not say it in any boasting spirit—in the last two years I have not had a single death or real case of illness, save four very young birds which died in the nest. The Necklaces have now eight very fine young ones, and would have had many more, but that so many of the eggs got broken from various causes. The parents are in splendid condition, but I have separated them for the winter months.

I have found a trap-cage (a rough frame-work of wood covered with wire netting), very useful for catching up the doves. The food pan I place *inside* the cage, and if set a few days beforehand, the birds soon get used to it. The ends of the trap hinge at the top, and are raised by a piece of strong cord fastened to them, and passed through a hook screwed in a wooden support that runs across the top of the aviary. The cord is then threaded through the netting in the aviary front, and tied tightly to a heavy weight some distance off outside. This keeps up the ends of the trap, and when the birds go in to feed the string can be loosened, and the doors closed, without alarming them by coming too near; thus they are caught quite easily. Doves are very soon frightened, and an attempt to catch one in the hand, generally ends with me, in terrifying them all, and the work of months of trying to get them tame is undone in a few minutes, added to this there is the risk of the birds injuring their wings against the wires. When I caught the hen Necklace in the trap she scarcely seemed to know she was a prisoner, and was quietly carried, cage and all, down to my second aviary.

I must just mention my flight of Barbary Doves that fly loose about the garden. They never wander far, and assemble close to the house, at stated hours, three times a day, to be fed. At night, all the year round, they all roost together in a large pink hawthorn tree, quite despising a dovecote, erected for their

benefit close by. There is one drawback to having them so near the house. They *will* not understand that plate-glass windows cannot be flown against with impunity. Several doves have been killed outright, though if only badly stunned, I have found a little warm milk, and a small quantity of weak brandy and water, and of course perfect quiet for a short time, will generally restore them.

THE BREEDING SEASON OF 1899.

By E. G. B. MEADE-WALDO.

In recording the results of the past nesting season here, I am afraid that the readers will consider that there is very little to relate, which is certainly the case, especially as the most interesting episode, *viz.*, the breeding of the Scops Owl, has already been fully described. The Spring this year was a singularly cold and cheerless one, without a real spring-like day until the glorious Summer suddenly broke on us, about the end of May and continued without interruption until September.

Our first nest this year was that of the old Eagle Owls, who hatched two young ones on April 3rd—this is fully a month later than usual. Both young were reared: which make ninety-seven reared during my lifetime. Hardly any eggs have been laid but what have been hatched, and no young one has ever died, with the exception of one that was choked; the old pair going on year after year having their two or three young as regular as clockwork.

My Ural Owls disappointed me, as, though the hen (who is very tame) wanted to nest badly and laid eggs, the presumed cock was too wild to take any interest in the proceedings. He is tamer now, however, and calls continuously a loud hoot, not unlike the barking of a fox but with a curious hollow ring in it. So everything may go well next season. The extraordinary light and floating flight of this great long-tailed Owl must be seen to be realized.

This is the first year, for many years, that my Trumpeter Bullfinches have failed to rear any young ones; not through any fault of theirs, however, as a fine brood of six was hatched in April, but, owing to the lateness of the season, there was absolutely not a morsel of the weeds they rear their young on, forward enough to contain the half-ripened seeds that are necessary. So the young died of starvation, and the old birds did not nest again, but moulted very early. In their wild state

they nest in February and March, but in other years these have nested throughout the summer in the aviary.

I kept two pairs of Painted Quails; they had to be separated very early as the cocks fought most furiously, allowing themselves to be picked up, and fighting whilst being held in the hand. The hens laid the most astounding quantity of eggs: commencing to lay in February, they laid until July without stopping, and must have laid well over one hundred eggs apiece. I usually left about twelve of the freshest eggs in the nest, but it was not until July 9th that they both commenced to sit, on ten and eleven eggs respectively. They hatched seventeen young ones between them, the whole of which they reared. The young ones at five weeks old were apparently quite ready to commence nesting, the little cocks making up to their mothers! who had begun to lay again when their broods were a fortnight old, and continued to lay until the beginning of October. This enormous quantity of eggs cannot be natural, of course, but the Common Quail will hatch and rear three or four broods of from nine to twelve young ones in a season.

My good old female Pin-tailed Sandgrouse hatched three beautiful young ones on June 11th; they were all reared, and proved to be two cocks and one hen. This is the first time that the full clutch has been hatched and reared here, and these are the first cocks, although I have bred eight hens. The cock of this nest was a Western Pin-tailed Sandgrouse, the colours of which are much more intense than in the Eastern form. The young cocks, which are half-breds, shew no signs of the Eastern form, but are most brilliantly marked. Another pair of Pin-tailed Sandgrouse did nothing but lay eggs, as the cock was a confirmed egg-eater.

I will only refer to the Scops Owl by saying that four out of the six young ones reared were given their liberty as soon as able to shift for themselves, and that they all thrive and are still occasionally to be seen and heard about. They are most entertaining to watch on the wing, catching everything in their feet, and almost stopping still in their flight while they put their heads down to take the moth or beetle.

Of Waterfowl, the most interesting hatch was a brood of Shovellers—eight young were hatched from eight eggs, and seven young ones are now full grown. The nest was nearly a quarter-of-a-mile from the water—a most laborious walk for the old duck, being mostly through dense cover. The young of the Shoveller are very hard to rear, as they absolutely refuse to pick

up any food whatever, taking all their nourishment by sifting the surface of the water; so unless on a pond with abundance of natural food, they would soon perish. Ours were reared by scattering fresh ants' nests on the water, when the cocoons to a great extent float.

To those interested in the moulting of Waterfowl, it is most interesting to note that the first plumage assumed by the young drakes *in Autumn* is not their full Winter breeding plumage, as in the majority of the wild fowl, but the eclipse plumage; the full colour will have to be assumed in the Spring. So these young drakes will have to complete three moults in little over six months.

The Pratincoles that I had great hopes of disappointed me, as I was sure of at least one nest; so did also my Rosy-breasted Gulls. These latter are only three years old, and Gulls are always a long time coming to maturity. It is very curious to note that the breeding colour of the soft parts of this Gull are exactly the reverse of what might be expected—the red legs and beak of Autumn and Winter are changed to *black* in the breeding season.

The last nests to record are those of the Gouldian Finches. As in other years, these charming little birds nested in the Autumn, each pair hatching four young ones in the middle of September, the whole of which they reared.

Without pretending to have discovered how to manage these little birds, I may say that since I procured one pair, five years ago, I have found them the hardiest and most prolific of small birds. I put them out in the perfectly open aviary in April, where they moult, and commence to breed in the end of August or beginning of September, and I bring them in about the middle of November—not that they appear to feel the cold at all. Last Autumn the original old pair hatched two clutches of six, and reared them all. When rearing their young I cannot detect that the old birds eat anything but hard seed, although at other times they are very fond of grass seed, and of pulling out the young shoots of grass on the lawn and eating the succulent ends. The seed can be seen in the crop of the young birds, apparently just as it is shelled; but presumably it is somewhat softened in the crop of the parent first. I tried two pairs of these birds in the same aviary, for the first time, this year; but although in a fairly roomy compartment, 20 ft. by 10 ft., they fought so desperately that I had to leave one pair in possession. Except when nesting, they appear the most peaceable of little

birds. The old birds do not remove any of the excreta from the nest, the whole accumulating in a perfectly dry odourless condition.

THE LATE DR. RUSS

By AUG. F. WIENER.

The late Dr. KARL RUSS was born 14th January, 1833, and died on September 29th, 1899.

I was in great hope that the report of his death would turn out to be a mistake, but I am sorry to say the great pioneer in aviculture is really dead; the decease of a son of his a few weeks before his own death, having also been mentioned in the papers, had led to some confusion.

Dr. Russ's father was an apothecary, and brought up his son to the same profession. The writings of Alexander von Humboldt seem to have had a great influence on him, and an ode to the memory of this great naturalist, published in 1859, soon after Humboldt's death, is probably the first literary effort of the late Dr. Russ.

Early in the sixties numerous well-written articles on Natural History subjects appeared in the German press, and quickly attracted attention to their author, Dr. Karl Russ.

Birds soon became the favourite subject of his writings, and the rapid diminution of song birds in Central Europe attracted his attention. He traced the growing scarcity of song birds to three causes.

(1). The more intense cultivation of the soil, making suitable breeding spots more scarce, against which little more can be done, than to educate farmers and peasants to the view that birds are very useful, and that their wanton destruction is bound to do harm to the agriculturist.

(2). The regular capture and consumption of millions of migratory birds in Italy and Southern France. To Dr. Russ's writings are due several efforts to arrange international agreements for the protection of migratory song birds.

(3). The trade of the bird catcher for supplying the market with so-called pets and European cage birds. The bird catcher, where he is allowed to ply his trade, is everywhere the worst enemy of our feathered friends. It may be taken for granted that out of one hundred caught European wild birds scarcely one will endure long in confinement.

Dr. Russ moved heaven and earth for the protection of wild birds from the clutches of the bird catcher, and in course of time succeeded in obtaining legislative enactments, which are gradually spreading over many countries.

He was one of the first to foresee that the importation of foreign cage birds would help the endeavours to protect European song birds. Because the foreign finches become more easily reconciled to confinement, they are better adapted to cage life, and the beauty of their plumage makes them preferred as pets to the European birds. Substituting foreign for European birds diminishes the demand for the latter, which is the best means of stopping the trade of the bird catcher in Europe.

Thus from a protector of European birds Dr. Russ became a student, and, in course of time, an enthusiastic admirer of foreign cage birds.

His example and writings produced many followers. I freely confess that if I had never read some of Dr. Russ's articles on cage birds, I should perhaps never have bought a first pair. I ended with a large aviary containing several hundred, and never regretted the time, trouble, and expense I devoted to the hobby during the spare hours of a very busy life.

Some time between 1860 and 1865 Dr. Russ settled in Berlin, and practically devoted himself to the study of foreign birds, and the production of numerous books on the subject. Of these I may mention his "Foreign Cage Birds," his "Handbook" and his work on foreign finches as the most useful.

In 1862 he founded a magazine, *Die Gefiederte Welt* (or *Feathered World*), similar in its objects to the *Avicultural Magazine*. At first this magazine, which has flourished and is now in its twenty-eighth year, appeared monthly, afterwards fortnightly, and, subsequently, weekly.

During the early years of the magazine I occasionally contributed little articles to its columns, and derived so much pleasure from doing so, that I hope some of the readers of the *Avicultural Magazine* may be induced to try the same amusement of a spare hour. Anyone taking a deep interest in a subject is pretty sure to have something to say which will interest others to read.

I recall one amusing instance. I was asked, one day, by a friend in London where he could find a few hundred skins of the beautiful cock of the Rock. It so happened that I had long wished to possess this bird, but could never find a live specimen. Asking what these skins were wanted for I heard that there

would be a demand for orange feathers and skins of this particular shade in next season's fashions of hats and bonnets. I informed my friend, Dr. Russ, and, at his request, wrote a vigorous protest, which he took care to have reprinted from his *Feathered World* into very many continental papers. For that season we did nip in the bud the absurd fashion of ornamenting ladies' hats by fixing on them birds' bodies in impossible positions and ludicrous surroundings. Unfortunately I had signed my name, and, as a result, I received a large and amusing number of complimentary, facetious, and also some uncomplimentary letters of all sorts from all parts of the world.

Another time I raised a puzzling question, which was never solved by the readers of the *Feathered World*, nor by Dr. Russ either. "Why does the Stork, which is so common in Alsace and South Germany and which crosses the Mediterranean, never cross the English Channel, and is practically unknown in England?" Nobody has yet found a satisfactory answer. An amusing explanation was, however, suggested. In Alsace the Stork is supposed to bring the babies to young households. In England the families are so numerous that the Storks made a strike and have kept away ever since.

But to return to Dr. Russ. To him the credit is due of having popularised, more than any author of his time, the knowledge and intelligent care of foreign cage birds. His training, his great power of observation, and his love for the subject, fitted him wonderfully for the task which he had undertaken. Whilst his descriptions are full of life and of personal observation, they exert a fascination on the reader which is rarely found in the writings of his more dogmatic contemporaries, some of whom seemed to find it difficult to admit that an apothecary should not only master so thoroughly a distinct branch of Natural Science, but also achieve so rare an amount of popularity in disseminating that science.

ON SEXUAL DIFFERENCES IN THE WINGS OF BIRDS.

By ARTHUR G. BUTLER, Ph.D.

It will be remembered that in Volume IV. of the Magazine a notice was inserted on the cover asking Members to forward to me dead birds having perfect wings, in order that I might study the sexual differences in these organs. To this request the Hon. Mrs. Carpenter and one or two other Members

very kindly responded, whilst my old friend, Mr. Abrahams, sent me birds so rapidly for a week or two, that I could not find time to mount them, and had to cry for quarter. In the meanwhile I carefully mounted and noted the few perfect examples which dropped off in my own collection.

Having gradually accumulated a mass of material, I at length decided to sit down and sort it into some kind of order with a view to sexual comparison, and, to my horror, I discover that after all this collecting and labour of mounting, the bulk of my material is practically worthless: this will become evident when I enumerate the finch-wings in my possession in the order in which the birds appear in my "Foreign Finches in Captivity:"

Serinus icterus, male; *Alario alario*, male; *Chrysomitris spinus*, male; *C. tristis*, female; *Cyanospiza ciris*, male; *Cardinalis cardinalis*, male; *Spermophila albigularis*, female; *S. gutturalis*, female. Thus, in the true finches, I discovered that I only possessed one sex of any of the species, excepting of our English Sparrow and Linnet, which are easily separable, both by the pattern and form of their wings.

In the Waxbills I am better off: *Stictospiza formosa*, female; *Sporæginthus melpodus*, female; *S. amandava*, male; *Lagonosticta minima*, and *L. rufo-picta*, males only; *L. cærulescens*, both sexes; *Estrilda phænicotis*, both sexes (but not in good order); *E. cinerea*, male; *Neochmia phaeton*, female; *Pytelia phænicoptera*, male. Therefore I possess wings of both sexes in *L. cærulescens*—the Lavender-finch, and *E. phænicotis*—the Cordon-bleu, and I find the following differences:—In the male Lavender-finch the third and following primaries (*a*) are somewhat longer than in the female, and in the Cordon-bleu the second to the sixth primaries are considerably longer than in the female, giving a distinctly more elongated aspect to the wing.

In the Grass-finches I have male wings only of *Poephila mirabilis*, worn female wings of *Steganopleura guttata*; but both sexes of *Taniopygia castanotis*: here again the second to the fifth primaries are much longer in the male than in the female, rendering the entire wing decidedly longer: in *Aidemosyne cantans* I only possess female wings, and, excepting in the case of the Bengalee (which is variable) I only possess one sex in the wings of any Mannikin, Whydah, or Weaver.

It will thus be seen that although I have gradually accumulated much material, hardly any of it proves to be

(a). I, of course, count the minute first primary.

valuable for comparison, but what little there is tends to confirm my original opinion that the wings of male birds have longer primaries than those of female birds, in order to give them an advantage in capturing their mates.

Probably few of our members have any idea what a pretty collection a series of birds' wings makes when perfect and neatly mounted on card. The wings of birds when carefully opened are quite as beautiful as those of butterflies, and if both sexes of many species, mounted to an even level, could be critically compared, I am absolutely certain that they would afford just as well-defined sexual differences as the wings of butterflies do.

I must confess that my examination of the collection of wings which I have accumulated has disappointed me; not because the differences do not exist, but because I find myself in a position to state the fact in so few instances, owing to the almost universally unisexual character of my material.

ZOO NOTES.

By J. LEWIS BONHOTE.

IV.—DECEMBER.

Dec. 2	4	Bewick Swans— <i>Cygnus bewicki</i>	N. Europe.	Duck Ponds.
	1	White bellied Sea Eagle— <i>Haliaetus leucogaster</i>	Tasmania.	Vulture Aviary.
„	4	2 Common Scoters— <i>Ædemia nigra</i>	British Islands.	Duck Ponds.
	1	Tufted Duck— <i>Fuligula cristata</i>	Europe.	„
„	5	2 Brown's Parrakeets— <i>Platycercus browni</i>	N. Australia.	Parrot House.
	1	Partridge— <i>Perdix cinerea</i>	Europe.	W. Aviary.
„	6	2 Hobbies— <i>Falco subbuteo</i>		
		Captured at Sea.	Indian Ocean.	N. Aviary.
„	7	1 Fieldfare— <i>Turdus pilaris</i>	Brit. Isles.	W. Aviary.
„	8	1 Bee Eater— <i>Merops apiaster</i>	Europe.	Parrot House.
„	13	4 Common Sheldrakes— <i>Tadorna cornuta</i>	Europe.	Duck Ponds.
	3	White Fronted Geese— <i>Anser albifrons</i>	Europe.	„ „

There is a peculiar lack of arrivals this month, and the few there are belong chiefly to the duck tribe, which is not studied by many members. Most people are put off from keeping ducks by the idea that a large and commodious pond is a *sine qua non* to successful duck keeping, but such is by no means the case, all of the surface feeding species doing well with

a very moderate amount of water. Of course some members have no ground or garden, which is essential, but, as many have small gardens, in which a pair or so may be well and profitably kept, I may be excused if I digress for a few lines as to the best means of keeping them. I will not attempt at present to go into the various species—but for those who may care to look it up, there is a short article by myself on the British species in Vol. III. of this Magazine, and there is also an excellent article by Mr. Finn in the *Feathered World* of 12th inst. (b). Where a large pond is not available, ducks will do better kept separately in pairs, or two pairs of *different* species, in small enclosures; a space 10 ft. square, with a pond 3×2 ft., and planted with suitable bushes to give them cover is all that is required. Low box bushes are, in my opinion, the best, and a clump or so of the common rush, as neither of these plants die down in winter, nor is the verdure fresh enough for the ducks to eat it. These I should arrange at the back of the aviary, carpeting under the bushes, and for some distance in front with turf—the pond might be placed somewhere near the front, and the rest of the aviary sanded over with clean coarse sand. As to the pond, there need be no great difficulty, for it can easily be made with a bag of cement and a load of sand, by any handy man—or, if preferred, it may be made of bricks cemented together—18 inches is quite deep enough—and it should have one shelving end, in order that the ducks may be easily able to get in and out. Ducks, in my opinion, are best pinioned, as, if they have full use of their wings, they are apt to hurt themselves at “flight-time” every evening; if pinioned, a 3 feet course of wire netting is all that is required to keep them in, provided always there are no stray cats! As to food, mine have ordinary poultry meal every morning, and soaked corn at night, with regard to soaking the corn, it is the simplest plan to put it to soak every night for the next evening, directly after feeding them. It is not absolutely essential that the corn should be soaked, but it is, I think, far better, and much more appreciated. They should also have some green meat chopped up with the meal once or twice a week. Of course, when they have young, the ducklings should be fed as chickens, but given plenty of ants’ eggs: a handful thrown on the water will afford them endless amusement.

Apart from the Anatidæ, the only birds of interest were a pair of Brown’s Parrakeets and a Bee Eater. The former are

(b). See also Vol. II., page 112.—D. S.-S.

very handsome birds in black, yellow, and blue; the crown of the head is black, cheeks white, bounded by an exquisite blue, back black, each feather margined with yellow—under parts yellow, each feather margined with black. Wing-coverts and quills bluish. The Bee Eater did not look very happy, nor was the cage altogether suitable, but then Bee Eaters (and some others) are “nothing accounted of in these days” at the Zoo.

In Memoriam.

The Avicultural Society has sustained a very real loss in the death of LADY ROWE, which occurred suddenly on Christmas Eve. Her ladyship, who was 75 years of age, was the widow of the late SIR SAMUEL ROWE, K.C.M.G. She was a devoted lover of birds, and took a keen interest in the success of the Avicultural Society. A singularly sweet and unselfish disposition won for LADY ROWE both the confidence and affection of her pets, and the love of all those with whom she was brought in contact.

C. S. S.

NOTICE.

The Executive Committee and the Editor much regret that no coloured illustrations have as yet appeared in the Magazine this year. The delay is due solely to their endeavours to get pictures satisfactorily reproduced without risking any deficit at the end of the year. It is hoped that, through the kindness of some members who are lending pictures for reproduction, it will still be possible to give four coloured illustrations during this Avicultural year.

CORRESPONDENCE.

PIGMY DOVES.

SIR,—It may interest bird lovers to know that I believe I have been fortunate enough to pick up a pair of Pigmy Doves (*Chamæpelis minuta*). They are certainly the tiniest doves I have ever seen, being very little larger than a Nightingale, only, of course, not so slender in build.

Their colour is, generally, a soft lavender-grey; the primaries of the wings having the outer quills edged with white, and the inner ones chestnut brown. On the wings are some spots of gun-metal colour—or steel-blue—which form themselves into two small bars, on the secondaries. The side tail-feathers are banded with very dark grey. The tail is short and square. The eyes are reddish-brown; bill, dark lead-colour; feet, flesh-colour.

The male bird gives vent to a tiny coo, in keeping with his miniature

size, which usually consists of three short notes—*wuh, wuh, wuh*—which, if pronounced in whistling, may be obtained.

I should add that, under the wings there is a dash of chestnut brown.

I have not been able to find out from what country these lovely little birds were brought; I only know that they were landed at Southampton. They are in splendid condition, and very fairly tame. One of them happened to fly out of its cage one day, and when perched on a ledge of the window, looked no bigger than a Sparrow. It was very quick on the wing, and *flitted*, rather than flew, as most doves do. I mean that its flight was jerky, as is that in the case of such birds as the Cardinals.

I haven't been able to compare doves like the Australian Diamond Dove with my Pigmies, but I should say that the former would look quite large beside them. They certainly are most fascinating little things, and I should be enchanted if they turn out to be a male and female, and breed.

HUBERT D. ASTLEY.

TREATMENT OF A BIRD IN SICKNESS.

SIR,—I have a Lesser Sulphur-crested Cockatoo which has a slight discharge from one nostril, and seems sleepy. Would you be good enough to tell me if there is anything more I can do for him.

I am keeping him warm, giving a few drops of wine in the drinking water; and feeding on canary seed, hemp, and oats, with occasionally a piece of biscuit.

The bird was evidently only just come to England when I got him—a week or ten days ago—and, unfortunately, I have been, and am, confined to my room, so he has most likely been left in a draught.

Any hints as to treatment will very much oblige. R. M. BARBER.

The following answer has been sent to Mrs. Barber :

The bird, being presumably a freshly-imported bird, is probably suffering from an ordinary cold contracted through exposure. At the worst, it is in the incipient stage of consumption.

In either case, the preliminary treatment should be the same. Firstly, it must be kept in a warm room, not “stuffy,” but warm, with proper ventilation. An ordinary living room, especially at this period of the year, is the very worst place in which to keep any bird, as such a room generally exposes a bird during the day and evening to undue warmth, and to extreme cold and draughts at night and in the early morning. If the bird *must* be kept in a living-room, the cage should be placed out of any possible draught, below the level of any gas-burners, and carefully covered up at night. The bowels should be immediately looked to, and if there be either constipation or irritant diarrhœa, relief should be given either by the administration of a few drops of *pure* castor oil—twenty drops in a warmed tea-spoon would scarcely be too much, as a portion of it is certain to be wasted in dosing the bird—or, more simply, by the addition of a little glycerine to the drinking water. Fattening food should be given at the same time, and I do not know of anything better for the purpose than white sunflower seed. If this treatment be found to effect improvement it may be discontinued, and all that will then be necessary will be to have recourse for a short time to some tonic in the drinking water. I have

found about twenty drops of Parrish's chemical food to the ounce of water to be a valuable tonic, but many other specifics are recommended. Gamgee's "Pick-em-up" paste, sold by Maggs Bros., of Swansea, has been very efficacious as a tonic with my birds. A little port wine in the water is also good; or, thirty drops of the tincture of perchloride of iron to the ounce of water; or, a few drops of cod-liver oil twice daily.

If the disease is more than an ordinary catarrhal cold, and is not alleviated by the simple remedies as above, it will require much more drastic measures, and the simplest of these is to wring the bird's neck. I have devoted weeks of trouble in the hope of saving the lives of valuable freshly-imported birds, but I have always in the end wished that I had killed them in the beginning. Such experience as I have had has taught me that if a bird be so far gone as not to be cured by very simple treatment, such bird may be considered as dead.

HENRY J. FULLJAMES.

THE LATE DR. RUSS.

SIR,—As an old subscriber, of many years standing, to Dr. Russ' magazine, *Die Gefiederte Welt*, and an occasional contributor, may I be allowed to state that Dr. Russ' only son and namesake, and assistant Editor of *Die Gefiederte Welt* died on the 23rd August, 1899, at the early age of 32. His father died on the 29th September, after a few hours illness. Probably the son was mistaken for the nephew, to whom Dr. Butler alludes.

C. A. HODGSON.

AUSTRALIAN BIRDS.

SIR,—I think the attention of members of the Society should be directed to the fact that a very important Work on Australian Birds has been prepared by Mr. Archibald Campbell, of Melbourne. The title of the book is "Nests and Eggs of Australian Birds, including the Geographical Distribution of the species and popular observations thereon."

Mr. Campbell has worked hard as a field naturalist for thirty years and is able to say that "the nests and eggs of nearly every species of Australian birds have now been discovered."

The book will be a royal 8vo., printed on roughened paper: it is proposed to illustrate it with about 130 photographic reproductions of nests, nesting scenes, etc., also 200 coloured figures of eggs: it is believed that it will extend to from 7- to 800 pages of letterpress.

As a work of reference such a book will be invaluable to aviculturists, to whom the wild life of their favourites is always of considerable interest; and, as it is anticipated that the cost will not exceed two guineas, it would be well for all the members of our Society who think of purchasing it to lose no time in obtaining order-forms (c). It would be a lamentable thing if so important a work should fall through from lack of adequate support.

A. G. BUTLER.

QUESTION—CHINESE DWARF-THRUSH.

SIR,—Could you kindly inform me how to distinguish the sexes of the Chinese Dwarf-Thrush?

I have recently obtained some, but am unable to distinguish them. Some are, apparently, young birds: on their arrival they were marked very

similar to a young Robin, but now they appear to be assuming the distinct markings of a Thrush, and the reddish colour is turning to white.

W. NICHOLSON.

The following answer has been sent to Mr. Nicholson :

The only imported Dwarf-Thrush that I know of is a N. American bird ; however, that does not prevent my being able to tell you how to sex your birds.

As the young have a spotted breast, I have no doubt that your birds are true Thrushes, and all true Thrushes (including, of course, the Robins, Nightingales, and allied birds) differ in the males having narrower crowns, much narrower and longer bills, and somewhat longer tails than the females. In the Crows, on the other hand, although the males are larger than the females, their crowns are broader, and their bills are shorter, broader, and altogether more powerful.

A. G. BUTLER.

AN OSPREY ; ALBINOS, ETC.

SIR,—Some of your readers may be interested to know that, last October a fine Osprey was seen here (Cobham, Surrey), and was, unfortunately, shot by our keeper, who “mistook it for a Heron.” It is being stuffed, to be presented to the Natural History Museum at Epsom. It measured 21 in. in length and 66 in. from wing-tip to wing-tip.

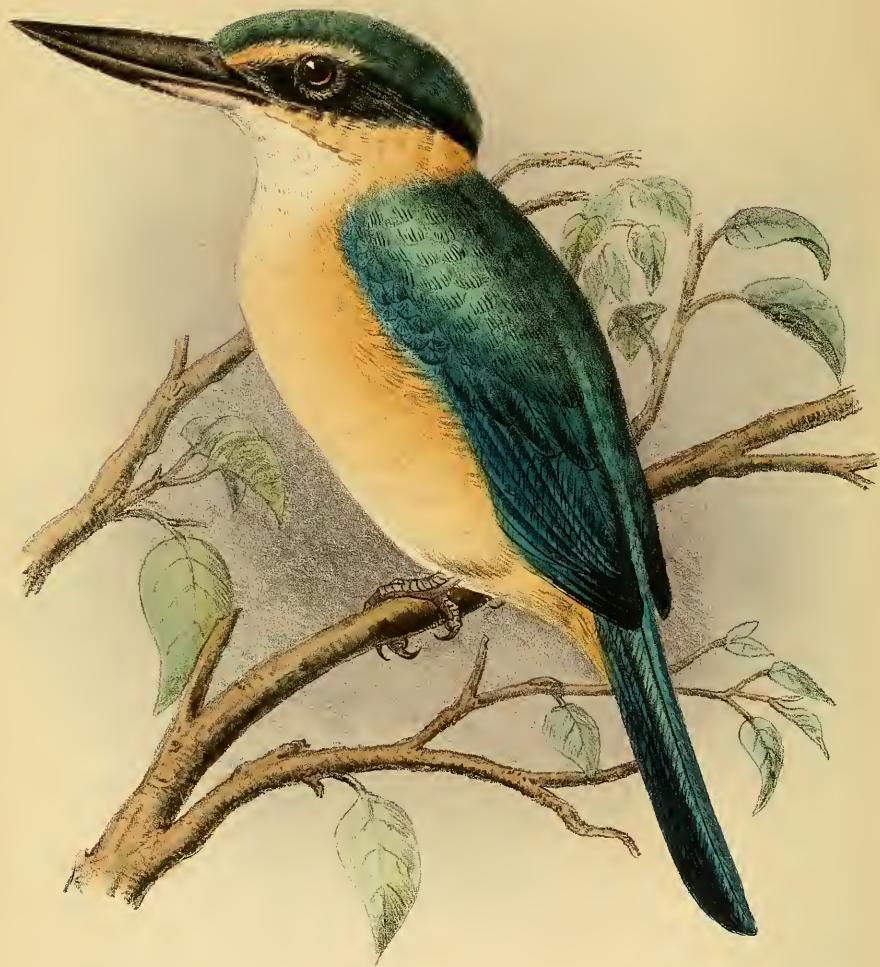
Those of your readers who are interested in Albinos and rare-feathered specimens, may be interested to hear that when I was in town, in the end of October, I saw a lovely stuffed specimen of a pure white Curlew, at Messrs. Rowland Ward's ; also that, in paying a visit to the Zoo, I saw a fine Albino Cormorant in the Western Aviary ; and that the keeper at the Parrot House informed me that he had known a case of an almost pure white Vasa Parrot (I can't remember whether he said it was a Lesser or a Greater Vasa) ; also that, a few weeks ago, my brother and our keeper saw a curious looking black bird in our grounds ; they described it as being about the size and shape of a Snipe without a tail ; they saw it on more than one occasion, but I have not had the good fortune to see it, and I don't think it has been seen for some weeks now. I fancy it must be either a foreigner escaped from somewhere, or a Melanoid specimen.

In the Crow's Cages at the Zoo, they have a beautiful White Jackdaw, and amongst the Collection of British Water-birds in the Fish House, they have a lovely White Peewit ; I did not notice if the latter was a true Albino, the light being bad when I saw it, but I noticed that its legs were much more pinkish in colour than those of the ordinary Peewit.

I also saw a fine pair of Yellow Budgerigars in the Parrot House. It would be interesting if the Society were to try the experiment of separating them and pairing them with Greens, to try to produce the Blue variety, which, as I have been informed by Mr. R. T. Babb, is sometimes the result of such a cross. I have heard of Yellows being true Albinos, as far as the colour of the eyes goes, but, as they were not in a very good light, I did not see whether it was so in their case. The keeper told me, on a previous visit, that he has known other cases of yellow freaks amongst Parrots, but, unfortunately, I can't remember the name of the species in which they occur.

Hoping that the above notes may prove of interest to your readers.

CHAS. CUSHNY.



SACRED KINGFISHER. 7/8.
Halcyon sancta.

THE

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A NATURALIST'S NOTES IN ECUADOR.

By WALTER GOODFELLOW.

(Continued from page 72).

In my article last month, I alluded to the Blue-shouldered Tanager as an example of a bright-coloured member of that family coming from a cool climate. I might have gone still another thousand feet higher, and spoken of Darwin's Tanager (*T. darwini*), for this bird is actually found in the gardens of Quito, at an altitude of 10,000 ft. I don't say this is its permanent home, but I continuously met with it in the gardens of the British Consulate there, especially in the months of December and January, when it came to feed on the seeds of various flowering trees. Our Consul looked upon it as a great enemy, always to be slaughtered without compassion. Its presence in the garden was soon known from its beautiful clear call-note, like a long drawn-out whistle on one note going up the scale, and then the same let out again, descending. This was always followed with a loud cry of "Uarichi," uttered three times in succession. "Uarichi" is the name they are locally known by. This note is rather too loud to be agreeable. I found out nothing that I can remember about the nesting habits of this species, but no doubt they nest during the months of November and December in the "quebradas" around Quito. These "quebradas" are the huge earthquake rents, forming quite valleys, and which intersect volcanic Ecuador from end to end. Around Quito, the country is quite cut up by them, and in these warmer spots, no doubt, this bird rears its family. It seemed to me strange that all the birds whose nests I came across, in, and around Quito, never I believe contained more than two eggs. This was the case with the Black-winged Siskin, and various *Diglossi* and *Grallarias*, etc. So no doubt Darwin's Tanager conforms to what seems almost to be an established rule in these high altitudes. I saw several of these

very handsome birds in captivity in Quito, and they seemed to take readily to a seed diet, which was most probably varied by a little fruit. The total length of the bird is 7 inches. The beak is short, thick, and black, with some black feathers around the base. The head and throat are pale blue, slightly mixed with green, and which shades from the neck into olive-green on the back. The entire under parts are a deep yellow, with an olive-green shading on the breast, where the blue of the throat leaves off. The rump is bright chrome-yellow, and the wings and tail are black, with each feather rather broadly edged with the same shade of blue as the head. I believe the female has scarcely any blue on the head, and also lacks the yellow rump. I regret that I have only the skin of a male with me to refer to, for I am, unfortunately, writing this article away from home, and it is, therefore, not so complete in detail as I should wish it to be. This seems to me to be another of the Ecuadorian birds well adapted for cage life, especially so, if one takes into consideration its fine form and colouring, the temperate region it comes from, and that it seems to do well on a seed diet. We never met with this bird at a higher altitude than Quito.

Another still more beautiful, but considerably smaller, Tanager, coming from the same part, is the Black-necked Tanager, as it is called in the S. Kensington Museum (*Euphonia nigricollis*). It seems a mistake to call this little bird black-necked, for the only real shade of black about it is on the throat, cheeks, and at the base of the beak. The head and neck are a clear bright blue, while the back, wings, and tail are a deep violet black. The rump, breast, and underparts are all bright yellow. The beak is very short, and the entire length of the bird does not exceed $4\frac{1}{2}$ inches. I never saw this bird actually in Quito, although I have no doubt it is at times met with in the gardens there; but within twenty-minutes walk of the town I saw it. I was told by residents there, that they had kept it in captivity frequently, and for this reason I mention it here. I am sure it would be an exceedingly nice bird to keep, with such bright vivacious habits as it has. The female is quite different from the male, and very little less beautiful. She is entirely green, with the exception of the turquoise-blue on the head and a shade of yellow on the forehead. These birds feed on seeds, insects, and fruit.

A little lower down on the Western side, we secured one specimen only of the rare *Compsocoma notabilis*. This is a very close ally to the Blue-shouldered Tanager. The arrangement

of the colours is exactly the same, but of an altogether richer and intenser hue, and it is also a little longer. Its stomach contained nothing but berries of a hard (and what one would have thought unnourishing) kind. Its lovely cinnamon-green back has a gloss on it like rich satin, and which throws into high relief the dull black head and neck with the patch of yellow on the nape. The entire breast and underparts are orange yellow, and the shoulders violet. The wings and tail black, edged with bright violet.

Before we descend from the healthy highlands of Quito, to the hot regions below, I must just mention, *en passant*, another beautiful member of the same family—*Iridornis dubusia*. The head, throat, and neck, in this bird, are dull black, with a crown of reddish-gold feathers which the bird can erect at pleasure. The breast and back are violet and very shining. The rump and the underparts indigo; the vent rufous; the wings and tail black, and each feather edged with pale indigo-blue. This beautiful Tanager we found on the West side of Pichincha, at an altitude of 7,500 ft. I don't think it is confined solely to that mountain, but it is confined to the Western side of the Andes; and on Pichincha was the only place we found it. I can say very little about its habits, beyond that it seemed a solitary bird, usually found singly, and nowhere common. Probably we procured some five or six specimens altogether, during a period of several months. It seemed to feed chiefly on berries.

Pichincha is a wonderful mountain for birds. It rises to an altitude of 16,000 feet, and so just enters the snow line. Its crater (still active) is said to be the deepest in the world, 2,000 feet and a mile or more across. On the Western side, the forests reach up to 12,000 feet, but from Quito, up to the same altitude on its Eastern side, the vegetation is much more stunted, and composed chiefly of flowering bushes, to which vast numbers of Humming Birds resort. After I have thoroughly worked out our collection, it will be interesting to count exactly how many species of birds we obtained from this one mountain. Various ground birds were very numerous, and also other species about which I may write later on. As one ascends higher, the bushes get smaller and smaller until they abruptly cease altogether, and one enters the bleak regions called the "páramo" or wilderness. From thence up to the snow line, the mountain is covered with a long, wiry grass, growing in thick clumps. This is by no means devoid of bird life, for among the grass is found a curious Partridge (*Nothoprocta curvirostris*) an exceed-

ingly fine Snipe (*Gallinago jamesoni*) and also a Grouse (*Attajis chimborazensis*), besides several small ground-loving birds, some exceedingly interesting. All have sombre plumage, and they struck us as having very mournful notes. When we were camping out up there, we found the melancholy cry of some of them quite depressing in the freezing early mornings and evenings. The note of one (*Pseudocalaptès boissoneanti*) which we heard all over the highest regions of Ecuador, will always be associated in our minds with snow and cold. These birds at night sleep among the roots of the thick clumps of grass, and I have often all but put my foot upon them. I spoke last month of the little Black Humming Bird we met with there. We found they built their nests under the ledges of the rocks, and during the day they hovered over the grass, sipping the honey from the small flowering plants, which grew sparsely about. On the cliffs, many Hawks made their homes, and still higher, the Condor also found a safe retreat, sleeping on ledges that were actually a sheet of ice.

From the central highlands near Quito, are several mule tracks passing over the Western ranges down to the forests which uninterruptedly extend from there to the Pacific coast. This would be a charming region for the naturalist to explore, if it were only more healthy. We crossed over the bleak, windy pass by the snows of Corazón, and the sudden transformation to the rich vegetation clothing the mountain sides, was most remarkable, and it gets more and more tropical as one descends. Humming birds (some very beautiful ones) were numerous in the higher parts, but at first I was rather disappointed in the numbers of the other birds. The forests seemed very silent, and birds scarce, but one had to take into consideration the vast extent of their feeding ground. At that time we were only passing straight through on our way to Santo Domingo, and it was rather late in the day for many birds to be about. I had expected to find them rather numerous along this high edge of the forest. As we crossed ridge after ridge, and descended deeper and deeper into the forest it was interesting to note the range of the different birds. These forests are almost uninhabited by anyone but Indians, and the traveller will only come across a negro's, or Ecuadorian's hut, at perhaps the distance of a day's ride between each; and that only on the more beaten trails.

Our first collecting place was Canzacota, a village of three miserable huts on a beautiful forest-covered ridge at an altitude

of about 5,000 feet. Here we collected among other birds some exquisite Tanagers, which would cause the aviculturist at home to go wild with delight if he could but possess them alive; and beyond the difficulty of obtaining them, there is no reason why many of them should not be easy to keep. Those of the genus *Calliste*, I am convinced would be hardier than the Superb Tanager from Brazil. Among the more important and conspicuous ones we obtained from this spot, were the rare *C. cyanopygia*; the Rufous-throated Tanager, *C. ruficularis*; the Spangled Tanager, *C. nigriviridis*; the Black-eared Tanager, *C. lunigera*; Vassor's Tanager, *Procnopis vassori*; and that beautiful pink one, the *Pyranga æstiva*. Some of these are confined solely to Ecuador, whilst others range into parts of Colombia also. Vassor's Tanager, with the exception of the wings and tail which are black, is a uniform shade of a lovely bright, but soft, blue, with a satin-like gloss over all. This bird I am afraid would be difficult perhaps to keep for it seemed to feed almost entirely on insects, whereas the others eat largely of fruit. We found this same bird, also at about the corresponding altitude, on the Amazonian side of the Andes, and also the Spangled Tanager; while the Black-eared is replaced by the Parzudake's Tanager. This is decidedly one of the most beautiful of all the genus *Callistæ*. The mother-of-pearl like reflection on the whole of the breast and back is truly remarkable. Beyond being larger than the *C. lunigera*, the only difference is, that it has bright red cheeks and forehead, and more golden yellow on the head and neck. These rich looking birds went about in small groups of three or four together, and like all the *Callistæ*, seem ever on the move, flitting from twig to twig, with the same little note uttered by the Superb Tanager. I had thought of trying to give an exact description of some of these Tanagers, but on looking at the skins before me now, I find myself wanting in words to describe the wonderful shades of colouring. This is especially difficult with the *nigriviridis* and the *cyanopygia*. This latter bird is also replaced on the Amazonian side, at the same altitude, at Baeza, by the Blue-necked Tanager, *C. cyaneicollis*. The shoulders of this superb creature shine like highly burnished gold, as they do also, but to a lesser extent in its prototype, the *cyanopygia*. These birds are still more solitary in their habits than Parzudake's and the Black-eared. It is a curious fact that almost all the birds found at Canzacota, have their duplicates (in many cases with only a slight change of colouring) in the birds found at Baeza, on the far Eastern side. It is still more marked in the Humming Birds. The blood red cock of the

Rock, is replaced at Baeza by the yellowish variety ; a few birds however remain exactly the same on both sides. The pink Tanager, *Pyrrhura erythraea*, is one of these. This bird, which is close on 7 in. long, is of a brilliant carmine pink all over, but a trifle darker on the head and back than on the other parts. The wings are fawn edged with pink, but the tail is pink with only a slight shade of fawn in it. This bird has a very wide range, not only in Ecuador, but all through Colombia, Central America, and I believe also into Texas. I never heard of it being found at coast level in Ecuador, but while we were in Quito, we shot one specimen in the Gardens of the British Consulate. Our Consul there who is an ardent ornithologist, said it was the third specimen only he had seen at that altitude during the 30 years he had lived there. The female is yellow in the same way that the male is pink, so together they form a striking pair of birds. I have noticed that if exposed to too much light, the pink in the set-up skins, fades rapidly. Another exceedingly beautiful Tanager we obtained at Baeza, and also on the Western side, was Rieffer's Tanager, *Psittospiza riefferi*. This is a fairly large bird, being nearly 8 in. in length. It is of a uniform bright leaf green, except the first primaries, which are black, and the vent rufous ; the same colour extends like a mask across the face. The shoulders are an extraordinarily bright emerald green, almost too bright to be pleasing. The legs are coral red, and the beak which is slightly hooked, is of the same shade. We procured these from various localities and they were always in pairs. The female is a trifle less brilliant than the male, when seen together. They were always in fairly high trees, and those we shot at Baeza had been feeding entirely on juicy berries, resembling elderberries. They had a curious call-note easy to imitate, and if one was shot, it was easy to attract the fellow one back to the spot by imitating this note. As may be imagined, it was far from easy to distinguish them among the foliage. The feathers have that same gloss on them which so many of the Tanagers have. The beak and legs quickly fade after death, and I noticed at S. Kensington they have not attempted to artificially reproduce it, as they should have done, because the contrast of the coral red beak and feet against the green plumage, is one of the most conspicuous features of the bird. Near Baeza we also obtained a pair of the wonderful Orange-rumped Green Tanager (*Chlorochrysa calliparaea*). This again is a bird whose colouring is too difficult to convey an idea of in words, for it changes with every position you hold the bird in. I am unable to give any particulars of their habits, beyond

that they seemed to like thick bushes, and kept out of sight as much as possible. They are far from being common, and I should like to have the chance of possessing such a pair of birds alive. The female lacks the black throat of the male. She is altogether of a dingy green, and the bright orange rump of the male is only slightly yellowish in her, and the same with the golden cheeks and the spot on the crown.

From the Western side we obtained many specimens of the Golden Tanager (*C. aurulenta*). This is rather a common bird at about 5,000 ft. That altitude seems to be its permanent home, but it doubtless ranges a little lower and much higher, according to the season. It is a truly fine bird, with its rich golden plumage and jet black ears. I saw one in a cage in Quito, kept by a gentleman who was the only Ecuadorian I met who was really fond of birds. His specimen was in perfect health and plumage, and seemed very lively and tame. They give one the impression that they would be tame birds. I understood that this one had been in captivity for some considerable time, and, if I remember rightly, it only had orange and banana to eat.

Among the Tanagers we found at an altitude of from 1,500 to 2,000 ft., were the Rufous-headed Green Tanager (*C. gyroloides*) and the Red-naped Tanager (*C. ruficervix*), both showy birds. In the former one, the back, wings, and tail are bright green; the rump, throat, and breast, turquoise-blue with some green reflections; the head, rufous; the collar and shoulders, golden. This bird seems to range from the Isthmus of Panamá down to Bolivia: so it ought to be possible to procure specimens alive from Colombia or Panamá. It seemed to feed chiefly on fruit. The predominating colour of the Red-naped Tanager is pale blue, with deeper blue and violet about the head. The vent is fawn, and the colour from which it takes its name is more of a golden-fawn shade than red. This bird ranges from the North-Western parts of Ecuador right up to the North of Colombia.

I now come to some of the Tanagers of the lowlands, starting with the Silver-throated Tanager (*C. icterocephala*) from Santo Domingo, and confined solely to Ecuador.

As I have several times referred to S. Domingo, and shall, doubtless, have to do so again in the course of these articles, I may here take the opportunity of saying it is not a town or a village, but consists merely of two huts in a small clearing of about eight to ten acres in the virgin forest, and is six days ride over execrable trails from Quito. The forest formed one solid

even wall of vegetation all around the clearing, and, as soon as one stepped beyond this border into the forest, it took some time to get the eyes used to the sudden gloom. I can recollect nowhere else in S. America where the trees were such a height as here, or the vegetation so thoroughly tropical-looking. In this clearing was a small plantation of sugar-cane, and a large plantation of bananas and a few other fruit trees. The rest of the clearing was all grass, and a pretty stream wandered through the centre, fringed with bamboos. It was a veritable paradise for the naturalist. At no other spot in Ecuador did we find birds in such numbers and varieties as here. In isolated huts in the forest around, dwelt the Colorado Indians: so called because they paint their bodies a uniform red from head to foot. One day, one of them brought me a small packet of banana leaf, neatly tied up with fibre, and, on opening it, I found it to contain a live Silver-throated Tanager. It was in perfect condition but for the primaries, which had been plucked from the wings. Although the Indian told me he had only just caught it, it seemed most confiding, and did not struggle in the hands in the least. Some birds get tamer much more quickly in captivity than others, and it was after finding this so tame, that I concluded the Golden Tanager would be equally so, for they greatly resemble one another in general appearance, and in size they are identical. I kept this bird during the two months of our stay there. It took great delight in hopping about the room, and made itself thoroughly at home at once. It bathed regularly every day, and also sang a little with a gentle subdued voice, chiefly in the early morning; and when so engaged would always sit on the bottom of the cage in one corner. I fed it on bananas with an occasional cockroach, which it readily took from the fingers. When bananas got over-ripe (which they quickly did in that hot country) they attracted into the cage a great number of very small flies, which the Tanager was very quick to catch. I fully intended to take this bird back with me to Quito; but one day, when the cage was hung outside the hut, one of the bamboo bars fell out of place, and so my Tanager escaped. I found it such an attractive bird, always so contented, that I hope it may be my lot some day to possess one of these birds alive in England, where, if they were known, they would be great favourites. This bird is just over 5 inches in length. The head is yellow with a greenish reflection about the nape. A black line starts from the base of the beak and widens out over the ears. The back is greenish yellow with a black line down the centre of each feather; the rump is very golden, and the throat a beautiful

bluish-silver, which extends in a narrow collar around the neck; the breast is yellow, with a greenish reflection on the flanks; the wings and tail are yellow, with a bright green edging to each feather. The whole plumage is very shining, and the eyes black and brilliant. We frequently shot these birds afterwards.

One day Mr. Hamilton discovered on one of the trees, a large ripe bunch of bananas which was a perfect "rendezvous" for birds of many kinds. He would take his stand for a time, under a neighbouring tree, and the number and variety of birds he got on this one bunch, was astonishing. He resorted to it every morning until the bunch was shot completely away, when we replaced it by another. His bag for two mornings consisted of two species of Toucans, Dusky Tanager, Pale-blue Tanager, Blue Chatterer (*Procnias tersa*), Silver-throated Tanager, two species of *Dacnis*, a White-backed Woodpecker (*Melanerpes pulcher*), Red-headed Barbet (*Capito bouciri*), a Hang-nest and Cassique (*Cassidix oryzivora*). These were the species, not the numbers. On many occasions Mr. Hamilton brought in Woodpeckers shot on this bunch; they were all of the same kind. The question is if they eat the fruit, or is it possible insects might have been attracted to it, and it was these the Woodpeckers came for? When shot, their beaks generally contained some of the banana. At S. Domingo it was necessary to be up very early to look for birds, for after about 10.30 there was scarcely a bird to be seen about compared with the earlier hours. Again about the close of the afternoon they reappeared.

At the headwaters of the Napo on the Amazonian side, we first came across the Magpie Tanager (*Cissopsis leveriana*). This is not the species we see alive in England sometimes,—*C. major*. I thought it was till I got my skins home, when I found mine was a much smaller bird. The total length of the *leveriana* is just roin., otherwise the two kinds seem to me identical. There may be some other slight difference besides the size, for I have not yet paid particular attention to them. "Dominicos" the Ecuadorians call them from their black and white plumage. We did not meet them on the Napo after where the Coca joins it, but just at that place they were fairly numerous. I used to observe them flying past our hut, every morning. At the edge of the forest near by, grew a number of green bushes, and on the very topmost leaves, the Magpies would alight. I never saw them settle otherwise than on the very top. These bushes had clusters of small hard buds on them, and it was these they came to eat. We were there during May and June, and at first I

thought they had nests at that time, for they always kept in pairs; but on second thoughts, I hardly think they could have been nesting then, for they were in heavy moult, and I remember it was quite difficult to get one in good plumage; so after getting about three specimens we gave up shooting them. Many of them had hardly a feather in their tails. I was so ill with fever during almost the whole of our stay at this unhealthy place, that I could not get out to pay as much attention to their habits as I should have liked. The Indians used the skins of these birds largely in their ornaments. I never saw them *in* the forests. I think they always kept to the open parts. A very striking looking Tanager we got at the same place was the Masked Tanager, *R. nigrigularis*. It is the same size as the Scarlet Tanager, but a handsomer bird. The crown of the head and neck are a most intense scarlet, the feathers resembling scales. It has, what resembles a black velvet mask over the lower part of the face and throat, just reaching to above the eyes. The back and breast are scarlet, but a patch of black extends from the vent half way up the breast, going off into a point. The wings and tail are black, and there is a band of black across the shoulders. The beak is also black with bluish grey at the sides of the lower mandible. The female resembles the male, but the black, especially on the underparts, is very brownish, and the scarlet not so intense. At the Coca we only obtained one pair, killed together with a single shot; but lower down the river at the Tiputini, for several evenings in succession at sunset, a flock of at least thirty of these birds alighted for a short time on the highest twigs of a small tree near our hut. These were the only two places at which we saw these birds on the river. At the Tiputini we also procured some of the lovely Bolivian Turquoise Tanagers (*C. boliviana*). These birds were also shot always toward sunset, and close to the hut. I don't see why they are called Turquoise Tanagers, for the blue on them is decidedly a violet blue.

At Iquitos, on the Upper Amazon (and also on the Napo) we obtained the indescribably beautiful Paradise Tanager (*C. yeni*). Birds at Iquitos were conspicuous by their almost entire absence. So I was surprised one day, when the old man who fetched our washing, brought me one of those exquisite creatures still warm and with a piece of string tied to its leg. It appears he had stunned it with a blow pipe among the banana trees in his little garden in the town. He had kept it alive for some time, tied up with a bit of string, but I found it was internally injured. I wanted him to procure me some alive, but

as we left the place a few days afterwards, I had no time to see further about it.

This must end my remarks about the *Tanagridæ*. I have tried to make them as comprehensive, but concise as possible, and I hope it may induce some of our Members to try and obtain some of the species I have named and study them for themselves.

(*To be Continued*).

THE LUNULATED HONEY-EATER.

(*Melithreptus lunulatus*).

By the Rev. C. D. FARRAR.

Some time ago, I one morning received a letter from a "birdy" friend, telling me that he was at Port Said with a big consignment of foreign birds; and that if I wanted any I was to mark the list and return it at once to London, where it would await his arrival. I gave a goodish order, and, amongst others, I booked some Lunulated Honey-eaters. I had not the least idea what they were like, whether big or small, pretty or plain; but I knew that they were rare. My friend assured me they had never been imported into England before, and, so being like the old Athenians, "always greedy of some new thing," I determined to try my hand with Lunuated Honey-eaters.

After about a fortnight, I got word that the birds were in the London Docks, and that I might expect them at any moment. Excitement now ran high at Micklefield, and when, one morning, a porter was announced at the back door with a big box of "live things," (this was the housemaid's way of putting it) I was not long in opening the store cage to see what it contained. I soon found the Honey-eaters. There were two pairs of them, and they seemed in perfect health, and very good plumage considering the long voyage from Australia.

My friend told me that they had been fed on some soft mixture on the voyage, but I was rather sceptical as to how long they would have lived had it been continued.

I transferred them to a big cage to themselves, and put in a bath. They at once took the hint with great apparent thankfulness, and were soon busy making their toilet, and seemed all the better for it, as they were rather sticky after such a long journey.

My next care was about food. I had never had a Honey-

eater before; but as they looked something like Zosterops, I thought I would try them with "egg flake." They went for this fairly well, but they did not keep very tight in feather. I then tried bananas; they appreciated these up to a certain point, but still I knew that the food did not altogether suit them.

I then thought over their name—Honey-eaters! but then I had read such sad accounts of what honey did for birds, that I hesitated to try it. However, I thought, it is "live and learn," and perhaps, after all, honey will not hurt them. Accordingly I sent one of my children down to a cottage where they keep bees, with a request for a jar of their best new honey. In fear and trembling, I put a small jar into the cage, and it was really laughable to see the way in which those poor little beggars went for the sweet stuff. They were down almost before my hands were out of the cage, as much as to say, "Why in the world did not you think of this before!" From that day to this they touch little else, so far as I can see. They have banana, but it goes out untouched; also egg, but it is despised. Honey is the only food they care for. It is a pretty sight to see first one and then the other settle on the honey jar, and insert their long tongues in the savoury mess.

They are now in the most beautiful feather and perfect health. They went all through the late bitter weather in a perfectly cold room: where the water in their cage was frozen into a solid block every night, but they did not appear to suffer at all. I rather feared they would go off: as they are not very thickly covered with feathers. We had 25° of frost!

They are wonderfully tame little things, and will let me put my face quite close to them without moving. In shape they are graceful, and about twice as big as a Zosterops.

The beak is yellow, tipped with horn-colour; the eyes are dark brown, encircled with a little yellow rim; the legs and feet lead-colour; the head, back, wings, and tail a pretty soft sort of olive-green; the breast soft mouse-colour. Under the wing-butt there is a patch of saffron, darker in the cock than the hen. Each of the birds has, on the cheek, a half-moon crescent of saffron-yellow—hence their name of "Lunulated."

Their call-note is *peep, peep, peep*; repeated rather rapidly. They are very fond of bathing.

In the summer, if all goes well, I intend to put the Honey-eaters and a pair of Zosterops, out into a little garden-aviary, and see if they will reproduce their kind.

THE GARDEN AVIARY IN WINTER.

By CHAS. L. ROTHERA.

It may seem somewhat previous to be writing about the effects of the winter on the occupants of our garden aviary so early as 10th January, for many times and oft wintery weather has scarcely set in at that date. But the vagaries of our English climate are so proverbial that one may justifiably hope and certainly assume that, as the days are visibly lengthening and the sun is already climbing up the hill again and gaining strength and power by the effort, we shall not have any more bitter or unpleasant weather than December brought us. It is not often that 16° or 18° of frost are recorded and several inches of snow fall and lie for a fortnight before Xmas day as was the case in 1899; and in addition to this we had a long cold thaw, dense fogs for two or three days in succession more than once; drenching rains, gales of wind and heavy rime frost fixing its white crystals so thickly upon the wire netting as to render it almost solid and quite impossible to see through. Let come what may, the conditions during the next two months can hardly be more unfavourable. And how have our pets fared through it? The only losses I have to record are two red-headed Gouldian Finches (both cocks) which succumbed on the same day (5th January). My caretaker had strict orders to keep a close watch on them and to bring them in at once if he noticed any signs of distress, but it was only on Thursday that one of them looked lumpy and next day both died. They were well fed and in perfect plumage and I imagine their death was due to lung affection. A hen Japanese Robin has died, too, but I attribute this to the ill-treatment to which an English cock Robin has subjected her and which has secured for him his liberty again. I regret her loss, for she has hatched three nests of young ones though she failed to rear them for more than a few days. But she might have done better next time.

Now, I consider this an extraordinary record for such a season, considering the character of our collection. Let me enumerate: various Weavers, Whydahs, Combassou, Silverbills, St. Helena Waxbills, Grey Waxbills, Orangecheeks, Avadavats, Parson Finches, Zebra Finches, Diamond Sparrows, Nutmeg Finch, Black-headed Nuns, Green and Grey Singing Finches, Indigoes, Nonpareils, Cordon Bleus, Bengalese, cock Blue Robin, Saffron Finches, Bulbul, Comoro Finches, and numerous smaller Parrakeets and Love-birds and the like, also Cardinals

and Virginian Nightingales, Chinese and Californian Quails, etc. Not only have these passed through the ordeal safely, but the smallest Waxbills and other allies have had no such help (as some authorities consider essential) as a lamp during the long dark nights to enable them to feed at about 10 p.m. No artificial warmth whatever is used in their house place. All we do is to protect the small foreigners' section with canvas screens over the open portion of the roof and to give them an additional supply of gorse inside, and plenty of hay and feathers with which they construct their own nests in the sheltered portions of their home. My constant instructions to the caretaker are to see that the snug corners are made snuggler for the winter and that all branches are removed which may tempt the birds to perch in the most exposed positions.

Our birds all look well and are a never-ending attraction to multitudes of our citizens. Perhaps the condition and appearance of the Bulbul has surprised me most, for I have not ventured to introduce one till last summer, believing them to be delicate birds, and even now I am not of course justified in speaking generally from the experience of only one specimen; but he is perfectly strong and healthy.

The Cow-bird too is a picture of loveliness, and the hen Budgerigar has a nest full of eggs just recently laid.

In past years I have found March and April the most dangerous months in the year—for hen birds are so liable to become egg-bound and die off before they are noticed.

AVICULTURAL HOTCHPOT.

By H. R. FILLMER.

The Bearded Reedling (commonly called the Bearded Tit, though it is not a Tit) has always had a great charm for me, but I must confess that I have not been successful in keeping it. Last summer I had half-a-dozen—two I bought, and four were given to me by Mr. Russell Humphrys—but I am sorry to say that only one now survives. They were all in more or less poor condition when they came into my possession, most of them being so bare of feathers that it was difficult to tell their sex. Four died in the moult, but one pair came into fairly good plumage and lived on, apparently in perfect health, until one day in January, when I found the cock dead. No doubt he had a

fit—but why? He was in excellent condition, neither fat nor thin, and had never looked the least out of sorts.

It has often puzzled me that the Blackcap and the Garden Warbler, which are apparently so closely allied, should differ so greatly in their adaptability to confinement. Of small British soft-food birds the Blackcap is undoubtedly the easiest to keep, and if properly fed it will live for years in perfect condition. But the Garden Warbler is a very difficult bird to keep in anything like good condition, and most examples speedily become shabby and do not live long. Both species eat largely of fruit as well as insects, and I should have thought that what would suit one would suit the other—but this does not seem to be the case (*a*).

In December, a beautiful Purple-capped Lory of mine (*b*) astonished me, more than a little, by laying an egg. Lories and Lorikeets often make great preparations for nesting, but seldom get so far as laying—at least that is my experience. The bird in question is paired with a Ceram Lory, and the two are much attached to each other. The egg was laid at the bottom of the aviary, and when I found it I rigged up a nesting box and put the egg inside. The Purple-cap sat for some weeks with fair regularity, but nothing came of it, and the egg disappeared. She is now sitting again.

I had a provoking experience last year with a pair of Madagascar Love Birds. The hen sat three times, always on fertile eggs, and always with the greatest devotion, yet all the eggs were addled. Both the birds are in perfect health, and I am at a loss for the reason for this failure.

I wonder that Peat Moss Litter is not more used as a covering for the floor of aviaries. For seed-eating birds there is nothing so good as a mixture of sand and gravel, but although that *can* be used for soft-food birds also, it will in their case be found both troublesome and expensive, as its absorbent powers are small, and it will require constant renewal. Sawdust answers fairly well in some respects, and is very cheap—but I like Peat Moss much better. If the bottom of the aviary be somewhat thickly covered, it will be sufficient to rake it over once or twice a week, and renew the moss about once in six weeks. (But the time the Moss will last depends of course on the size of the aviary, and the size and number of the birds). It is wonderfully

(*a*) I have not found the Garden Warbler at all difficult to keep in an aviary; the two I have had used to eat my regular soft-food mixture and a good deal of seed; they had a little fruit occasionally.—A. G. B.

(*b*) She sat the full time without result, and, on searching the nest, I could find no trace of eggs, but surely these must have existed!—H. R. F.

absorbent and deodorising, and when removed from the aviary makes valuable manure for the garden.

A friend of mine has just told me an astonishing tale about a murderous young cock Canary of his. This little wretch was kept in a large cage with five brothers and sisters—all being about the same age, and most of them nest-fellows of the murderer. One by one he killed off the whole five—striking each of them but one blow on the head, which produced almost instant death. On careful examination, a tiny hole was found in the skull of one of the victims, caused by the fratricidal beak; and it is supposed that the rest were similarly injured. The story may seem difficult of belief, but I can vouch for the *bona fides* of my informant.

Last year, and again this year, the Crystal Palace Show opened to the public at two o'clock on Friday. I do not know how this new arrangement commends itself to exhibitors, but personally I dislike it extremely. Formerly, Saturday of the Crystal Palace Show was the great annual re-union of aviculturists, and one was certain to meet one's friends there. Now, some go on Friday and some on Saturday—the people who especially wish to meet go on different days—and there is disappointment.

May I be allowed to take this opportunity of supplementing my notes on "food" which appeared in the Magazine for January? Spratt's Game Meal is sold in two forms—one with shell and one without. Unless otherwise ordered, that *with* shell is supplied. The shell appears to be finely powdered oyster shell, and is no doubt useful in the case of Pheasants, for which the Game Meal is principally intended. But when used as a food for insectivorous birds the shell may sometimes be dangerous. Some time ago, I had two cases of hæmorrhage from the intestines, in my bird-room, which I attributed, rightly or wrongly, to the use of meal containing shell. Since then I have been careful to order it *without* shell. I always use less of the Game Meal than of any of the three other ingredients in the soft-food mixture I recommended. I find that, if too much be added to the mixture, the other things are picked out and the meal left. I am not sure whether the meal might not, with advantage, be omitted altogether—though this would add to the cost of the food, as the meal is the cheapest ingredient. The value of crissel as a bird food is only just beginning to be recognised—I am disposed to place it very high.

THE CRYSTAL PALACE BIRD SHOW.

SOME NOTES BY D. SETH-SMITH

The recent exhibition at the Crystal Palace was certainly not up to the average, either in the number or quality of the exhibits; at least, so far as foreign birds were concerned, and I could only find one bird that was an absolute novelty, and of which I cannot remember to have seen the like before at a show. This bird perhaps the rarest in the exhibition, was a specimen of *Sticteptera annulosa*, of which more hereafter.

The reason for this show being inferior to many of its predecessors, was probably to be accounted for by the fact that the weather was exceptionally severe, and several would-be exhibitors who had entered specimens, at the last moment wisely decided to keep their birds at home.

Amongst the Weavers and Whydahs, the most noteworthy exhibits were two Crimson-banded Whydahs (*Penthetria ardens*). In the class for Waxbills, there was a nice hen *Pytelia afra*, several Rufous-tailed finches (*Bathilda ruficauda*) and a pair of the charming, though not altogether trustworthy, Crimson Finches (*Neochmia phaeton*).

There was a fine pair of Tri-coloured Parrot-finches and three specimens of the ordinary Parrot-finch, a good Pintail Nonpareil, and several Gouldian-finches, one pair of which were remarkably fine birds. The long-tailed Grassfinch (*Poephila acuticauda*) is a bird that appears to be becoming a great favourite with aviculturists, and indeed, it well deserves to be, as it is a most delightful and beautiful species, and one, moreover, that freely reproduces its kind in captivity. Several pairs were exhibited and I imagine most were aviary-bred. One pair of Masked Grassfinches (*P. personata*) were shewn, but there was not a single specimen of the closely allied White-eared finch (*P. leucotis*). The latter appears to be comparatively hardy, but I think the Masked must be considered one of the most fragile of the Grassfinches, at least, I have found it so.

Some nice examples of the Double-banded or Bichenov's finch (*Sticteptera bichenovii*) were well worth notice, and the closely allied Black-rumped finch (*S. annulosa*) shewn by Mr. L. W. Hawkins was, so far as I am aware, the first specimen of this species that has been exhibited in this country; but it so closely resembles *S. bichenovii*, that it is quite possible that it may have passed as such on former occasions. Another bird of much

interest, was the hybrid Bicheno-Zebra-finch which has been mentioned in a former number of this Magazine.

There was one pair of the minute Cuba finch (*Phonipara canora*) but the hen looked decidedly out of condition.

In the class for "all species of Grosbeaks, True Finches and Buntings," there were one or two interesting birds; the one that attracted most attention being an example of the Japanese Bunting (*Emberiza rutila*). A large number of these birds were received by a London dealer in the Summer of 1899; and apparently nearly all were cocks. I obtained two, and found them somewhat spiteful towards other birds, and very timid, and altogether not particularly attractive.

Some specimens of the Blue Grosbeak (*Guiraca caerulea*) were also shown here.

Amongst the Tanagers there was a very handsome species catalogued as a Blue-headed Tanager, and there was a brownish bird in the same class which appeared to be a female of the same species. Two Blue and Black, several Superb, a Scarlet and a Black Tanager were also worthy of note, and there were, in the same class, a couple of the Australian Grey-backed Zosterops (*Z. caerulesceus*).

The class for Doves and Quails was poorly filled, and contained only three Nicobar pigeons (*Calenas nicobarica*), a Bronze-wing (*Phaps chalcoptera*), a pair of Crested Doves (*Ocyphaps lophotes*), and a pair of Chinese Quails (*Excalfactoria chinensis*).

In the Parrakeet class, the best bird was the Alexandra Parrakeet (*Polytelis alexandræ*); a Pileated Parrakeet (*Porphyrocephalus spurius*), and a hen Golden-shouldered Parrakeet (*Psephotus chrysopterygius*) were also of great interest. These three species are all very rare, but these same examples have been seen so often before at the Palace that one is apt to forget how uncommon they are.

Amongst the Lories and Lorikeets, I noticed a very fine Ceram Lory (*Lorius garrulus*), a good Forsten's Lorikeet (*Trichoglossus forsteni*), and a Scaly-breasted Lorikeet (*Psittenteles chlorolepidotus*).

Amongst the Parrots, the most noteworthy exhibits were, a Yellow-naped Amazon (*Chrysotis auropalliata*), a Mealy Amazon (*C. inornata*), a grand Hawk-headed Parrot (*Deroptyus*

accipitrinus), and a Lesser Vasa Parrot (*Coracopsis nigra*). Two Macaws were shown, a Hyacinthine (*Anodorhynchus hyacinthinus*), and a Red and Blue (*Ara macao*).

In the class for all species not included elsewhere, were a few most interesting and rare specimens, the best of all being a fine Regent-bird (*Sericulus melinus*), in full colour. Some of us saw this bird at Balham last November, but I doubt if the species has before been exhibited at the Palace. A good Barbet was also shown here, and a fine pair of Wood Swallows (*Artamus sordidus*).

Amongst the British birds I found nothing of exceptional interest until I arrived at the "curiosity" class. Here I found a truly remarkable bird—a Bullfinch, described in the catalogue as "half cock and half hen," and this description certainly was not a bad one, for on one side it had the plumage of a cock, and on the other that of a hen. I have never before heard of a case of hermaphroditism in small birds, and I think this must be a great rarity. Another interesting freak was an Albino Hedge Accentor, and a beautiful Silver-grey variety of the Starling was well worth notice.

In the class for insectivorous residents, were, amongst others, two very healthy Tree-creepers, a good Nuthatch, an unusually fine Stonechat and two Long-tailed Tits. There was also a very fine specimen of the Greater Spotted Woodpecker.

In the Migratory Section, there were one or two very fine Redwings, some good Nightingales, Blackcaps, Wrynecks and Redstarts, not to mention several common species, and one bird that should have been elsewhere, namely a Crested Titmouse. This species is now very rare in the British Isles, being found only in a few of the pine forests in Scotland, and, where it occurs, it is a resident species. It is hardly likely that the specimen exhibited at the Palace was a British example.

The last class I have to mention, was that composed of Continental birds. This class is usually a most interesting one, but, on this occasion it was very poorly filled. The most interesting bird was a fine Hoopoe. A Blue Rock-thrush, a Rose-coloured Starling, and an Ortolan, were the only other birds shown in the class.

NOTES ON THE BRITISH BIRDS AT THE CRYSTAL PALACE.

By J. LEWIS BONHOTE.

Owing to having been away from England it is three years since I last wrote on these classes, and I was consequently rather anxious to see whether, during that time, any improvement had taken place in either the management of the Show or the judging, and to a certain extent I was agreeably surprised, the classification and division of the classes is carried on in a far more reasonable manner, with the result that judging is easier and the number of birds wrong-classed considerably smaller. The same peculiarities (see *Avi. Mag.* II. p. 65, and III p. 84) or other similar ones, enabled the cages of certain exhibitors to be picked out whatever class they might be in and this will always be possible, and to some extent unavoidable as long as exhibitors are not bound down to have cages of certain fixed sizes and shapes. Another point which is, I think, not recognized is that Shows of wild birds (British and Foreign) must of necessity be judged on quite different lines from other exhibits, and that a Show of wild birds should be rather an exhibition of wild birds enjoying an existence of confinement than long series of Bullfinches, Goldfinches and such birds judged by an imaginary ideal created in the judge's brain and probably bearing but little resemblance to the wild bird which one sees in a country ramble.

With Canaries, Pigeons and Fowls, etc., the case is quite different; there the Club of any particular variety draws up its standard by which the birds are judged and the prize is awarded to the fancier who most nearly succeeds in breeding his bird like the ideal; but in wild birds there is no fixed ideal, each judge forming his own, and it becomes a mere matter of chance whether you are the possessor of a bird approaching the judge's ideal. In my opinion, however, prizes in the Wild Bird classes should be given almost entirely for the keeping in good condition of rare species, or of species difficult to manage in confinement, so that where, in the one case a man gets the prize for making the laws of natural selection subservient to his own, on the other hand he would get it for imitating Nature's food and surroundings so satisfactorily as to enable birds to live and enjoy confinement; a pleasure to themselves and their keepers. In this respect, and in this respect only, are Shows connected with the study of aviculture, and consequently year by year the Crystal Palace Show is noticed in these columns.

Let us now turn to the birds.

Class 88 (Bullfinches) was a very strong class and well judged, we were pleased to notice a nice hen, 3rd, and several foreigners ignored, while the 1st prize bird was beautiful in colour and shape.

Class 89 (Goldfinches) was another very large class, and the birds throughout of very fine quality; as usual some small foreigners were shown, but as the differences between a small foreigner and a large Britisher are practically nil, these mistakes must of necessity occur.

Class 90 (Chaffinches) were only a fair lot. Mr. Fulljames' (ex. 1st) was in our opinion far too dark, and the remainder for the most part wild and fresh caught.

Class 91 (Linnets) must have taxed the judge's powers considerably, there being but little to choose between any of the exhibits.

Class 92 (Lesser Redpole and Twite) was a very good class, and the Lesser Redpole has at last got a look in. 1st prize went to a very fine Twite and about as large as any I have seen.

Class 93 (Siskin) was spoilt, as usual, to our taste by the numerous colour-fed monstrosities. 1283 (unnoticed) was in my opinion the best.

Class 94 (A. O. V. Finch or Bunting Resident) brought forward some nice specimens of Hawfinches, Greenfinches and a Yellow Bunting. 1st was taken by a Yellow Bunting; 2nd, Hawfinch, a very fine bird; 3rd by a Greenfinch. Several of the Greenfinches appeared to me to be colour-fed, but perhaps I am wrong; this class also included a Cirl Bunting, Tree Sparrow and a very wild Reed Bunting.

Class 95 (Lark or Pipit) a small but good class. 1st went to a Lark, badly shewn and as far as we could see nothing to recommend it; 2nd was a very nice Wood Lark in grand trim; 3rd, a nice Meadow Pipit which would have shown off to greater advantage in a cage without perches. The class also included a very fair Rock Pipit which only got a card.

Class 96 (Robins) a very small and bad class, none of them being worth a card.

Class 97 (Blackbirds).

Classes 98 (Thrushes) and 99 (Starlings) small classes but containing some fine specimens; in the last named most of the

birds were young. 1556, 4th, being undoubtedly the best in this class.

Class 100 (Magpie, Jackdaw, Jay, Chough or Raven) where is the Rook or Crow to go? A fair class. 1st went to a fine Chough; 2nd to a nice Magpie, and 3rd to a splendid Jay which ought almost to have been first.

Class 101 (Pied and Albino) would have been a very weak one but for the 1st prize bird, a Bullfinch, with one-half of its body like a cock and the other half a hen, we have heard of such things among butterflies but never among birds, and should be curious to hear further particulars. The only other bird worth noticing was a white Hedge Sparrow.

Class 102 (A. O. V. Resident Insectivorous, small) the judge's usual stumbling block and over he goes. The Stone-Chat is a *resident* bird, Mr. Hills, and a common one too, I think I have noticed that fact before in these columns, however judges will learn in time. This class contained two Tree Creepers, two Long-tailed Tits, two Nuthatches, Grey Wagtail, etc. I am glad to see that this last named is 3rd in his proper class at last; matters are improving, but slowly.

Class 103 (A. O. V. Resident Insectivorous, large) a very small class containing a Woodpecker in good trim and some nice Missel Thrushes.

Class 104 (Blackcap or Nightingale) was a very small class, and the birds were of only moderate quality.

Class 105 (A. O. V. Insectivorous Migratory) contained several splendid birds. 1st and special was a very fine Wryneck; two nice Redstarts, several Redwings, a Yellow Wagtail, Whinchat, Whitethroat, and a nice Crested Tit completed the class.

Class 106 (Bramblefinch) which we were glad to see in a class by themselves, contained many splendid specimens.

Class 107 (A. O. V. Seed-eating Migratory) contained several Snow Buntings, Serins, and 1st a very fine Lapland Bunting.

Class 108 (A. O. V. Continental Bird) was made up with a Rose-coloured Pastor, Blue Thrush, Hoopoe, and Ortolan Bunting, none of them in very fine condition.

The management is to be congratulated on its liberal classification which it is hoped may encourage exhibitors to fill up the classes rather better next year.

PARROTS AT THE CRYSTAL PALACE.

By the Hon. and Rev. F. G. DUTTON.

I suppose it would not be very easy to get up a really good Show of Foreign Birds at any time, but when the most inclement week of the most inclement month of the year is chosen, and, in addition, the first of altogether insignificant prizes is withheld, unless there are a certain number of entries, then no condition which would ensure failure has been forgotten. Were it not for one or two public-spirited exhibitors who live near the Palace, the show of Parrots would not be worth the trouble of going even from London to see.

These conditions operate more heavily against the Parrots, because they are more valuable, are very often pets, and are more expensive as to carriage.

Yet Budgerigars, which come first in the Parrot classes, might be more numerous : for they are hardy, and are bred with greater ease than Canaries. Here a decent prize list might produce a good entry. Eleven entries cannot fairly represent the numbers that must be bred annually in England. The third-prize pair was the only entry calling for any especial remark. These were good in colour and distinct in marking. What was the secret of the wonderful colour Messrs. Mackley attained some years ago in the Budgerigars they exhibited? I have never again seen such intense green as that. What are called Yellow Budgerigars ought not to be mentioned unless they have a class to themselves ; they are quite out of place in a class for ordinary Budgerigars.

It is curious that no Rosellas were exhibited. There were two pairs of large Pennants, and one Mealy Rosella. The Pennants were fine but rather lacked lustre.

The class for Kings and Crimson-wings had three specimens : two Crimson-wings—of which Mr. Smith's specimen was the most brilliant—and a Queen.

The next class, for single Parrakeets, brought together an interesting variety. Mr. Fulljames took 1st with his Alexandra Parrakeet, and I presume Mrs. Astrop took 2nd with her Pileated Parrakeet, which ought to have had equal 1st. Mr. Fulljames' bird is a marvel of successful aviculture, but the Pileated Parrakeet is as rare and quite as faultlessly shown.

The other birds were a good Rock Parrakeet ; a cock Red-

rump, which looked rather mopy; a neat golden-shoulder hen; a very brightly-coloured Bengal, shown by Mr. Babb; and an Orange-flank of Mr. Swaysland's. I have no notes of Mr. Dawson's Indian Parrakeet, and cannot recall if it was there.

"Pairs of Parrakeets" consisted of a pair of Nendays, shown by Mr. Fulljames; and, what I was inclined to think was a cock *Palæornis cyanocephalus* and a hen *P. rosa*, shown by Mr. Smith.

In the class for Lories and Lorikeets there were five entries: a pair of Blue Mountains, a Ceram, a Crimson Lory, a Forsten's, and a Scaly-breast. The Scaly-breast took 1st, but the Forsten's ought to have had equal 1st: its condition was perfect.

The Love-birds consisted of three cages of Peach-faced.

In the class for Amazons and Greys, 1st went to a good Gold-nape, but the *Inornata* next it, which took 3rd, was better shown. Second went to a good Grey of the light type. Mrs. Newmarch showed a very large Double-fronted, but it might have been cleaner. Mr. Cooper showed a nice little *Albifrons*. Mr. Billett showed a variegated Blue-fronted, which was sold; it seemed a fairly free talker, but it was very rough.

The Cockatoos and Macaws call for no special comment. Mr. Fulljames showed his Hyacinthine Macaw, but it was beaten by Mr. Smith's Ara Macaw, which was very well shown.

In the last class for Parrots, Mr. Maxwell sent a rather fascinating Hawk-head, which took the prize; Mr. Roberts a Vasa; and Mr. Fulljames a pair of——? I told him Conures, but I could not identify them amongst the Conures at the Natural History Museum. There was also in this class a variegated Blue-fronted Amazon—which of course was marked "wrong class."

ZOO NOTES.

By J. LEWIS BONHOTE.

V.—JANUARY.

Jan. 9	2 Java Sparrows— <i>Padda oryzivora</i> .	Java.	W. Aviary.
„ 10	1 Indian Dial Bird— <i>Copsycus saularis</i>	India.	„
	2 Whooper Swans— <i>Cygnus musicus</i>	Europe.	Duck Ponds.
„ 11	1 Blue and Yellow Macaw— <i>Ara ararauna</i>		
		S. America.	Parrot House.
„ 16	8 Burrowing Owls— <i>Speotyto cunicularia</i>		
		S. America.	N. Aviary.

Jan. 17	1	Woodcock— <i>Scolopax rusticola</i> .	Brit. Isles.	W. Aviary.
	1	Short-eared Owl— <i>Asio accipitrinus</i>		
		Captured in Indian Ocean.		N. Aviary.
„ 18	2	White-headed Sea Eagles— <i>Haliaetus leucocephalus</i>	N. America.	Eagle Aviary.
„ 19	1	Laughing Kingfisher— <i>Dacelo gigantea</i>	Australia.	W. Aviary.
	2	Triangular-spotted Pigeons— <i>Columba guinea</i>		„
„ 22	1	Black-headed Bunting— <i>Emberiza melanocephala</i>	S. W. Africa.	
			Bred in Menagerie.	„
	1	Woodcock— <i>Scolopax rusticola</i>	Brit. Isles.	„
„ 26	1	Bare-eyed Cockatoo— <i>Cacatua gymnopsis</i>		
			S. Australia.	Parrot House.
	2	Undulated Grass Parrakeets— <i>Melopsittacus undulatus</i> , var.		Parrot House.

Winter is not a good time at the Zoo : the arrivals are, compared with the Summer months, few in number, and a great majority made up of our larger English Wildfowl.

This month, although Wildfowl (with the exception of the Whoopers and Woodcock) are not represented, the additions are composed of what may be called from an aviculturist's point of view, 'the poor and middle-class' style of bird, and include no striking or rare species. I wonder if many members have kept the Burrowing Owl : if not, I can thoroughly recommend it as a most interesting aviary bird. They are a small bird about nine inches in length, and their chief peculiarity is the length of the tarsus, which is considerably longer in proportion to the size of the bird than in other species of Owl. It is an inhabitant of America, where it is found from the prairies of the North throughout the whole of Central and South America. As its name indicates, it lives in burrows, which it rarely hollows out for itself but takes one already made by marmots or the ground squirrels (*Spermophilus*) and alters it to suit its own purpose. It is largely diurnal in its habits, which renders it especially suitable to an aviary existence. In their aviary a burrow should be made for them, and a small mound erected just outside the entrance, on which they will be very fond of sitting, darting into their burrow when alarmed, only to poke their heads out the next minute and gaze at the intruder. Except for shelter and when nesting, they do not spend much time in the burrow, but sleep on a perch like other Owls. The late Mr. Meinertzhagen bred them successfully in his aviary, where they made a long burrow reaching into the adjoining

aviary : so that perhaps it would be as well to sink wire netting round their cage, in order to prevent their possible escape. At the Zoo they are kept in a large cage, in which several drain pipes are laid in a heap of sand, which affords them plenty of amusement, although of course useless if breeding is the object, as the sand falls down as fast as they dig.

There is comparatively little else to write about this month ; in cold and stormy weather birds are never seen at their best, nor is the Zoo a very comfortable place for the onlooker. The *Uvæan Parrakeet*, to which I called attention some months back, has joined the majority. By the way, for those interested in this bird, there is a short notice in Vol III. p. 130, from the pens of the Hon. and Rev. F. G. Dutton and Mr. Phillipps.

The Bee-eater is still alive, but looks rather miserable in a Parrot cage. In England we don't understand the keeping of such birds as they do abroad, where I have seen Bee-eaters, Rollers, and Nightjars in good plumage and looking just as healthy as in a state of nature.

At one of the Zoological Gardens abroad—I think Berlin, but will not be quite certain—they have recently built a large house solely devoted to the birds of the country, which promises to be a great success ; I will, however, refer to it more fully next month. At Hamburg they have also a house devoted to native birds, and our Gardens might well take a leaf out of their book, for I feel sure our native birds would be more appreciated were they better known, and if it were shown that they could be accustomed to a life of confinement as well as foreign species (*c*).

The Fish House is worth a visit to see a fine albino Lapwing, which is of a pure white all over, except the under-tail coverts, which are light chestnut ; the eyes are of normal colour, but the legs have assumed the pink colour characteristic of albinos.

CORRESPONDENCE.

DR. KARL RUSS' WRITINGS.

SIR,—Among the important works of the late Dr. Russ is one, not alluded to by our mutual friend Mr. August Wiener, which (as it is the latest, most up-to-date, and probably the least known of all his books) should, I think, be called attention to.

After many years of study, this book seems to have been completed

(*c*). I saw such a house at Frankfort-on-the-Maine in 1897; the birds were, however, too closely caged.—O. E. C.

in 1898, but it was not published until 1899: the title of "Soft-food Eaters" is a modest one, for it practically includes all cage-birds not already treated of in his works on the Parrots and Finches: indeed part of the work on Finches—the Tanagers—is more thoroughly dealt with in this later work. The German title of this—the fourth illustrated volume of the "Fremdländischen Stubenvögel"—is "Die fremdländischen Weichfutterfresser" (Insekten-oder Kerbthierfresser, auch Wurm-vögel genannt, Frucht-oder Berenfresser und Fleischfresser), mit Anhang Tauben und Hühnervögel," with ten chromo-lithographic plates.

In his Introduction Dr. Russ commences with the following remark: "With this Volume II. the entire great work 'The Foreign Cage-birds' in four volumes, the principal work of my life, is completed." Strange, that the author should live so short a time after its completion! Yet, how many of us at the end of our span will be able to rejoice that we have successfully finished all that we hoped to do? A. G. BUTLER.

INTERNATIONAL CONGRESS OF ORNITHOLOGY.

SIR,—It may be of interest to members to know that at the International Congress of Ornithology, to be held in Paris, on the 26th-30th June in this year, a portion of Section IV. will be devoted to aviculture.

Anyone may attend the Congress by sending their names and a subscription of 20 frs. (16s.) to M. J. de Claybrooke, 5, Rue de Sontay, Paris, before the opening day.

J. L. BONHOTE.

THE RED-FACED FINCH.

SIR,—The bird sent by me to the recent Balham Show as a Red-faced Finch appears to have attracted much attention. In every report the name has been questioned; one reporter going so far as to say, "described as a Red-faced Finch, but certainly not so." I have always taken it to be a specimen of the Red-faced Finch, *Pytelia afra*, which is, of course, quite distinct from the other Red-faced Finch, *Pytelia melba*.

As pointed out in the Magazine last August, there is some confusion between the two species, owing, no doubt, to the great rarity of both. Very marked differences, however, exist between them. For instance, the red on the face differs in position, extending farther downwards in *melba*, and much farther backwards in *afra*; the under-tail coverts of *melba* are quite white, while in *afra* they are striped; then the general appearance of *melba* is much brighter, and the transverse markings on the breast are much more clearly defined than they are with *afra*.

The bird in question is the hen of a pair received nearly two years ago. At that time they answered to the description of *Pytelia afra* in Dr. Butler's "Foreign Finches." The male, however, had not obtained its full red face, only a few spots being visible. When moulting, several feathers in the wings and tails of both birds were replaced by others, white and yellow in colour, and the surviving hen has also recently grown whitish feathers on the head—hence the peculiar appearance which has made it a puzzle. A pair of *Pytelia melba*, living under the same conditions, moulted true to their original colour.

I cannot regard the bird as very abnormal, for it is evident that a third specimen exists in England having a similar appearance. The owner of this third specimen brought over his bird from Madeira, and had no idea of its name and species. In October of this year he was at the Crystal Palace, and, seeing my specimen there, recognized it as the same species as his own. He then wrote to me as follows:—"I should be much obliged if you can tell me the name of the bird exhibited by you in Class 118 at the Crystal Palace Show last Tuesday. The Number of the bird was 3, and it was named Red-faced, hen. Is it a Waxbill, Mannikin, or Combassou, and are they rare birds? What part of the world do they come from, and are they quite hardy? I should like to know what price you are asking, if you wish to sell the bird. I have had a male bird of the same kind for some time, which I got out in Madeira, but they gave him a Portuguese name, and I have never been able to find another like him until I saw your hen the other day. The one I have is the only one I was able to procure when in Madeira. He is a very friendly little bird, very tame, and a great favourite."

I endeavoured to purchase this gentleman's specimen, but he would not be persuaded to part with it.

L. W. HAWKINS.

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THE SACRED KINGFISHER.

(*Halcyon sancta*).

By D. SETH-SMITH, F.Z.S.

The numerous family of Kingfishers (*Alcedinidæ*) has been divided by Dr. Sharpe into two well-defined sub-families, namely, the fish-eating, or typical Kingfishers (*Alcedininæ*) and the insect- or reptile-eating group (*Daceloninæ*), each comprising several genera.

The genus *Alcedo*, of which our common European species (*A. ispida*) is the best known example, belongs to the first of these groups, and the genus *Halcyon*, of which the subject of this paper is a well-known species, belongs to the second sub-family—the land-feeders.

Although very rarely brought alive to Europe, the Sacred Kingfisher is not at all uncommon in a wild state in Australia, where it appears to be almost equally distributed over the whole of the mainland, although, curiously enough, it is not found in Tasmania. Gould obtained specimens from nearly every part of Australia, and found that those from Port Essington, on the North, were identical with those of the South Coast; whereas, those inhabiting Western Australia were found to be slightly larger than the others. Although several of the land-feeding Kingfishers undoubtedly occasionally resort to streams and capture fish, *Halcyon sancta* appears never to adopt this mode of feeding. "It seems," writes Browinowski, "somewhat of a misnomer to call this bird a Kingfisher, since it not only does not plunge into the water to capture fish, but is even found in dry and arid places where it cannot obtain water, from which it would appear that it can exist without drinking." I have had two of these birds in my aviary for nearly a year, and I can never remember to have seen either of them drink; but they are by no means averse to a bath occasionally, when they simply saturate their plumage and take a long time in drying it again.

This species feeds, when at liberty, upon mantides, grasshoppers, beetles, small lizards, and such like ; and some specimens, that were shot by Gould in the neighbourhood of the salt marshes, had their stomachs crammed with small crabs and other crustaceans.

In captivity I have not found these birds difficult to keep, in fact they seem to be as easily dealt with as the larger and better known *Dacelo gigantea*, the celebrated "Laughing Jackass." A diet of raw meat, preferably beef, chopped into small pieces, suits the Sacred Kingfisher well, if it be now and then supplemented by a few mealworms, cockroaches, or other insects. I have seen my birds catch and devour minute frogs ; and any earthworm that may shew itself is immediately captured. I have little doubt that newly-hatched birds would prove a sore temptation to them ; but they seem perfectly harmless towards adult birds however small, in fact I have kept the tiny Zebra Waxbills in the same aviary with the Kingfishers, which never interfered with them.

This Kingfisher almost invariably beats its food against the perch before swallowing it, as if to kill it, even although it consist merely of a piece of beef : and after a meal of tough skinned creatures, such as cockroaches, it always throws up the indigestible parts in the form of pellets.

I have found these birds a very interesting addition to my collection : they are so very different to every other species that I have kept, both in habits and appearance. Their flight is very rapid, and it is interesting to watch one of them, after sitting perfectly motionless for some time, dart from its perch and seize an insect from amongst the grass and return, without apparently touching the ground, to the place from whence it came.

Last summer one of these birds dashed out of the aviary one afternoon as I entered, and was lost to sight amongst the trees. I greatly feared I should see it no more, but after a careful search I discovered it high up in a maple tree, enjoying itself immensely in capturing small green insects. I climbed the tree and endeavoured to coax it with a mealworm, but, although it would always allow me to handle it in the aviary, it would not let itself be caught when at liberty, but as my hand was almost upon it, went off as though it meant to fly right away. Curiously enough, however, when it had flown some sixty or eighty yards, it turned and came back to the tree from which it had flown. Again I tried to entice it with a mealworm—a dainty loved above

all others—but all in vain. This sort of thing went on for some time, and I expected each minute to see it fly right away; but somehow it seemed afraid to venture beyond the garden boundary. Fortunately I knew its great fondness for mealworms, and in them lay my only hope of securing the truant. Its mate was caged and carried to the foot of the tree on which the escaped bird calmly sat; and a handful of mealworms was thrown on the ground close by, and several were given to the bird inside. From aloft, the truant cast jealous glances at his mate, who was having a good square meal; and the temptation to join in the repast quite overcame him. With a swoop he landed upon the frame of the net I held in my hand, where he sat for some time, apparently conscious that I was powerless to envelope him in its folds while he remained in this position. But I waited patiently and my patience was rewarded. With another swoop he seized a mealworm, and my net was upon him before he could rise from the ground.

The ordinary note of this species is peculiar and somewhat difficult to describe, sounding something like *cuio, cuio*, but it not infrequently utters a note resembling *chip, chip*, like a Crossbill, but decidedly louder. This is probably the note that Gould describes as *pee, pee*.

The upper parts of this species appear green in some lights and deep blue in others, but the back is decidedly greener than the wings or tail, which in most lights appear deep blue. A line of greenish-black runs from the base of the bill through the eye to the back of the head. The throat is white. A line from the nostrils over the eye, all the underparts, and a band encircling the neck are buff, most of the feathers being, in the immature birds, margined with black.

The sexes are alike in plumage, but the male is probably slightly the larger bird of the two.

“The season of nidification commences in October and lasts until December, the hollow spouts of the gum- and boles of the apple-trees (*Angophoræ*) being generally selected as a receptacle for the eggs, which are four or five in number, of a pinky-white, one inch and a line in length and ten lines in diameter.” (Gould).

A NATURALIST'S NOTES IN ECUADOR.

By WALTER GOODFELLOW.

(Continued from page 99).

There is something particularly exciting to the naturalist when he first plunges into a tropical forest, neither have I found this feeling to wear off by repetition. Though it is by no means in the forests only, that one finds a greater abundance of animal life than elsewhere; but still one is always *expecting* something, and the strange note of a bird unseen excites more curiosity there than it might do under other circumstances. We used to feel this especially after travelling for weeks among the cold, barren Andes of Ecuador, where we were continuously at great elevations, and to a somewhat lesser extent in Colombia where the altitudes were not so high, and, therefore, the changes not so striking. With what satisfaction we dipped down into deep warm forest-covered valleys; where everything was full of the exuberance of tropical life! Fresh flowers, fresh birds and butterflies, and fresh sounds on every hand. One longed to possess more eyes to take it all in. We would then throw aside our warm "ponchos" which only a few hours before we had found barely sufficient to keep out the cold winds, when after a short, rapid, and steep descent, we were in a new region. These valleys, so cut off from one another, are quite a feature of the Andes, and especially of the southern parts of Colombia, and present many interesting local forms in their ornithology. In these restricted areas, animal life is of course much more concentrated, and therefore appears much more abundant than in the interminable forests of the Pacific coast, and of the Amazonian region. There, one can go on for a whole day without hearing the sound of a bird, or the chirp even of an insect. I have never found any forests so silent and gloomy as those leading down from the Eastern Andes to the headwaters of the Napo; for days we would not hear the voice of a bird beyond occasionally the lovely song of the "flautero." I never saw this bird, and don't know to what species it belongs. It seems difficult to believe it to be a small bird, but I was assured it was by our Indian carriers. It is wonderful for such notes to come from the throat of a bird; even our wild-looking Indians always seemed impressed by it, and would halt for a minute to listen to the song.

Perhaps the period of the year had something to do with the paucity of bird life on the higher Eastern side at the time of

our visit, for the fruit-eating birds migrate with the seasons to a higher or lower altitude as the forest fruits ripen. On the Pacific side we found a much greater abundance of birds, and our necks would ache from constantly gazing into the high trees. Especially in the lower forests, going down to Santo Domingo, we found our progress quite slow from our frequent deviations from the trail to shoot, or perhaps to gaze at, some beautiful bird we had hitherto only known by skins at home, or to discover the owner of some strange and probably harsh note of alarm. Then a deer would start up and bound along the path, and lead us off on a futile chase until we had almost completely lost ourselves; and again we would follow for a hundred yards or more the fresh foot prints of a jaguar which had only recently passed along the same way as ourselves.

When I commenced to write my February article, I intended it to be exclusively on the *Psittacidæ*, but I found just the skins I wanted were not at hand to refer to, so the present observations must be supposed to continue where I left off with the Red-faced Conure.

Compared with other birds, we obtained comparatively few members of this family from the Pacific side, and those were mostly of the genus *Pionus*. Unless one found out the trees they fed on it was almost impossible to shoot any, for whatever part we were in on this side, it was seldom our luck to be in the vicinity of their feeding grounds, and almost our only acquaintance with the majority of them was when they were passing overhead morning and evening; especially was this so with the Macaws and Amazon Parrots. The first evening of our arrival at Santo Domingo, Mr. Hamilton shot a pair of the *Ara chloroptera*. A small flock of them passed over the clearing just about sunset, and alighted in a tree on the edge of the forest for a few minutes; as soon as one fell, the rest of them arose with a deafening noise, and some of them flew around their fallen companion which had lodged in a branch, and it was through this, that a second one was obtained. These two were the *only* Macaws that we procured during the whole of our stay there, and I never saw them settle anywhere in our neighbourhood again. Wherever we came across Macaws they always inhabited the highest forest trees, and were generally out of range. I can remember no other forest birds which flew at such a height above the tree tops as the Macaws and some of the Amazons did. The former look really grand flying, not in the way of colouring, but from their fine shape and movements, and

they seem to cover space so rapidly. It is a curious thing that the colours of these birds which are so remarkably brilliant in some of the species, are imperceptible when flying overhead, even at no great height; which is due to seeing them against the bright skies. It was impossible to distinguish then, the difference between the Scarlet, and the Blue-and-Yellow Macaws. But at sunset it was another thing, when the slanting rays of the sun lighted up the beautiful colours of the under sides. On our long canoe journey down the Napo, I always looked forward to this, the pleasantest hour of the day. Then for an hour or more a continuous stream of Macaws and Parrots would pass overhead with their incessant harsh cries. The Parrots (mostly of the genus *Chrysotis*) would be in flocks of from four to six, up to fifty or sixty; but the Macaws, seldom more than fourteen or sixteen together, and more often less. On dozens of occasions I have counted them and always found them in even numbers. Sometimes I thought I had at last found an odd number, but, without fail, the straggler would come hurrying on not far behind. The Macaws always seemed to prefer a certain kind of tree to sleep in—a large roomy tree, which rose rather above the general forest level, and which bore its leaves mostly on the outside. Wherever we were, they always went to the West to sleep, and likewise in the morning returned East. They took a long time to settle down at night, and seemed by the noise to have a pitched-battle before doing so. Their usual rising time was about 6.30, but if the mornings were dull and the forest mists hung about later than usual, they would not start off to breakfast until 8 o'clock. The Macaws choose the highest sites obtainable for their nests, and seem to prefer a hole on the under side of a sloping branch.

In travelling down through Colombia, I remember one place where we came across a number of the Military Macaws; they were passing over a very small valley and were just below us, and it was a pretty sight to look *down* upon them as we did then. I was surprised to find them there, for the altitude must have been near 5,000 feet. I have always found the flesh of all the Parrot tribe very tough to eat, whichever way one cooks it; but if a papaya tree is at hand, and one wraps the carcase in one of the leaves for a day, it renders it fairly tender. At Santo Domingo we usually fared pretty well in the matter of food, and despised the carcasses of all the birds we skinned, except the Game Birds and Pigeons; but to the people of the hut we lived in, all was grist that came to the mill, and they boiled up

indiscriminately together Hawks, Tanagers, Umbrella Birds (nasty black-looking flesh), and all birds down to Humming Birds. Our Indians at Papallacta used to simply throw the bodies for a few minutes into the centre of the fire without even troubling to clean them out, and when they were just scorched, tear them to pieces with their fingers and eat them, accompanied by much laughter and joking. At some places we, too, were glad of a pot (barring Hawks) of mixed birds, and one took one's chance of getting a tasty morsel or the reverse.

Around Guayaquil, and especially on the Island of Puná at the mouth of the river, the tiny *Psittacula caelestis* was fairly common, and at times could be bought in the town for twopence or threepence each. These are lovely little birds and would make a grand addition to our aviaries at home. Its total length does not exceed 4 inches. The head, throat, and cheeks are bright light green, and a brilliant blue spot by the eye; the nape is greyish blue, but the back is rather a difficult colour to describe, being what I call a greenish stone colour. The wings are sapphire with a green edging to the primaries. The tail is bluish green with the upper tail coverts turquoise, and the rump bright sapphire blue. The breast and under parts are light green. It will be seen by those who are unacquainted with the bird, that it has a lovely arrangement of colouring. The back is particularly soft looking, and the shade of sapphire one of the richest that could be found in any bird. The female is easily distinguished from the male, in the first place by being smaller and the colours paler. She has very little blue on the rump and none at all on the wings, and the breast and under-parts are very yellowish. These birds are confined solely to Western Ecuador, and are not found at any great distance inland. In the sandy and rather barren country just around the Port of Manta, grew some straggling acacia trees which they frequented in small flocks. We also met with them again near Esmeraldas, higher up the coast. It is rather strange that on the Eastern side is found the *P. xanthops* at an altitude of 5,000 feet, which most remarkably resembles the *Cælestis*. It is half as large again, but the only chief difference in the colouring is the face, which is lemon instead of green, and the breast is greyish yellow. This bird is not nearly so plentiful as the *Cælestis*, in fact it is rather a rare bird.

At Santo Domingo we obtained some of the Bronze-winged Parrots (*Pionus chalcopterus*); I believe it is also found in Western Colombia. It is a curious looking bird and I was

much struck by it, and wished to procure one or two alive if possible. I spoke to some Ecuadorians about it, and as they seemed not quite to understand the bird I wanted, I fetched one of the skins to show them. "Ah," they said, "that is not a Parrot at all," and seemed to pity our ignorance in supposing it was. I have forgotten now what they did call it. I showed them another bird of the same genus which they acknowledged was a Parrot, and it seemed they thought a bird was not a Parrot if it had no green about it. This reminds me of an incident which happened at a hut we stopped at for our last night on the Napo, near the mouth of that river. There was a pretty Duck walking about the hut with longish legs; I enquired what kind of Duck it was, and when the owner finally understood what I was alluding to, he assured me it was *not* a Duck. Close by it was a fowl whose whole body with the exception of the head was as bare of feathers as an egg. Mr. Hamilton pointed to it and said, "if you told us that was not a fowl we might believe you."

I know many aviculturists at home consider that the genus *Pionus* are rather stupid birds to keep in captivity. They are not favourites of mine either, but if I could have procured a Bronze-wing I think I should have made an exception in its favour. The general prevailing colour of the bird is a dark indigo blue, with the feathers on the forepart of the breast edged with pink, the shoulders and wing coverts are shaded bronze, the primaries and secondaries violet, the latter partially bronze. The under tail covert is red with a blue line down the centre of each feather, the under surface of the tail feathers, turquoise; and the under surface of the wings of the same beautiful shade. The beak is yellow horn colour, and the naked membrane around the eyes, bright red. I think these birds are not very well known in England, in captivity; but in June, 1883, they received a pair at the "Zoo." One died within the month, but the other lived there for four years. We never met with them in any numbers, generally one or two pairs only together.

At an altitude of from four to five thousand feet, we came across the *Pionus seniloides*. This is another rather uncommon looking bird. We met with them in flocks in the early morning at San Nicolas, where they must have committed great damage to the maize. We met with the same birds also at Baeza on the Eastern side, and I am inclined to think that on the whole they were rather brighter in colour. Just below Baeza we also shot one specimen of the very rare *Urochroma stictoptera*. This is not a pretty bird, being a uniform bright green, with the wings

brownish black, and the wing coverts tipped with dull white. Its total length is 6 inches. In the same neighbourhood we procured another member of this genus, *U. hueti*. A very beautiful bird, but not so rare as the former.

At the headwaters of the Napo, the *Pyrrhura souancei* was rather common. The Indians of that region often brought them to us alive, chiefly young birds taken from the nest. At one time I had some of them alive. They were affectionate little birds, but that is about all one can say of them, for they had a shriek which I found very unpleasant and irritating. In a large aviary they would look pretty when the bright red on the wings would show off to advantage. They were nesting in April, May, and June. They seemed to feed on some exceedingly sticky fruit, so that their beaks were quite covered with it. I found the young were easily reared on banana.

Another bird the Indians there seemed particularly fond of was the *Brotogerys jugularis*. It was quite a usual thing to see one of these very pretty little birds on the shoulders of the Archidona Indian women. They would carry them in that position when employed in household duties, and also on long journeys through the forests. I kept one or two alive for some time and found them most charming birds. They would sit on my finger and kiss, and try to hold quite a conversation in a comical little voice. Their only fault, if fault it was, was that they always wanted to be with one. One of mine met with a very sad end for it was gobbled up by a dog, and the other was accidentally killed by myself. I had carried it in my pocket for two days through the forests to the river where we were to embark in canoes, but it got out of the improvised cage I had made for it in a hut we were staying in for the night, and hid among the litter on the floor, and to my great grief I trod on it before I knew it was out. We never met with them again after we left the headwaters of the Napo, although I have been told since that they are found also on the Marañon. This I doubt, and I think my informant mistook them for the *B. tui*. This latter bird we first met with in the month of July near the mouth of the Napo, when they were nesting. They were exceedingly plentiful, but at that season were mostly seen in pairs only. Stopping one day on the river bank for a few minutes, just after we entered the Marañon (as the highest part of the Amazon is called) our Indians I think must have seen one of these birds enter a tree overhead, or I don't know what would have caused them to suspect there was a nest there. At

any rate one of them quickly mounted the tree and produced six young ones from a hollow in the bend of a branch 20 feet above the ground. There was the greatest difference imaginable in their sizes, some being almost feathered while others were only about half the size and scarcely a feather showing. They were quite willing at once to feed on masticated banana from the Indian's mouths. The yellow on the forehead was already conspicuous in those that were most feathered. I brought a pair from this nest home with me, and still have them in perfect health. I didn't trouble to feed mine from the mouth, for small as they were, I found they would eat the banana readily by themselves, and would eat all day long if they were kept supplied with fruit. This diet they lived on solely, until we almost reached England. I had, however, laid in a small stock of Canary seed in Pará, in case my bananas gave out on the way, which they did, a day or two before we reached Madeira. I found, however, they took as readily to the seed as if they had never fed on anything else. They seem perfectly hardy, and don't mind cold in the least, but they are just a *trifle* noisy; probably with mine it is because they are in a room with a lot of noisy birds, and when one starts they all seem to think they must add to the din. I believe they could with ease be taught to speak, because mine imitate all sorts of sounds, and the notes of many birds, so that they constantly deceive us in this way. I have a pair of Golden-backed Trumpeters (*Psophia napensis*), who say "Chewy, Chewy," in a curious tone of voice when they want food, and the *Tuis* imitate this to perfection. When in fully adult plumage they have a yellow patch around the eyes, at present it is only faintly visible in mine. I can heartily recommend these birds as pets, for they are most affectionate, and although I have no time to pay any special attention to mine now, they remain just as tame as when they were with me nearly all day long out in South America. Many of these remarks also apply to another and much better known member of the same genus, the Canary-winged Parrakeet (*B. virescens*). We met with them for the first time on the Lower Napo, somewhere near the mouth of the Curarai, where at sunset they assembled on the trees along the banks of the river in such thousands that I have never seen anything like it in my life elsewhere. They seemed to choose as their sleeping places chiefly one particular kind of tree, that was very bare of leaves, and grew where the banks of the river were lowest and the ground swampy. Our Indians delighted in making a noise to disturb them, when the sky all around would be full of them,

and the noise so great that by shouting ever so loud we could only just hear each others voices. The Canary-coloured wings are most conspicuous when flying, and such clouds of them together formed a very fine sight. These birds have great homing instincts, in fact all birds the Indians keep seem to possess or acquire this instinct. They keep no birds in cages, and Toucans, Cassiques, Parrakeets, Parrots, Penelopes, and other birds I have seen about the Indian habitations with full liberty, sleeping in the forest trees near the huts at night, and in and about the huts during the day. When up the Napo, I once had a pair of the *B. virescens* brought to me by an Indian who lived on the opposite bank of the river to us, to see if I would give him something in exchange for them; as I was not able to attend to the matter at the time, he left them in our hut until the next day, but during that evening they took their departure back of their own accord, and the river there was quite as wide as the Thames at London Bridge; neither was the hut visible from the opposite bank. I brought a pair of these birds home alive with me also. I find them as hardy, if not more so, than the *Tuis*. Their nesting season on the Marañon must have been in July, for although we never came across their nests ourselves, we met Indians with numbers of young ones, so I procured a pair from them and brought mine up by hand.

Although I have nothing of importance to chronicle about the Red-vented Parrots, I may just remark that they were also exceedingly common on certain parts of the Napo. All those I came across in the possession of the Indians, although exceedingly tame, seemed uninteresting and rather stupid birds.

We did not trouble much to look out for live birds until we got down to the Amazon, as we expected to find there all we cared to bring home with us, but in this we were grievously disappointed. I searched everywhere, in village after village where we stopped, and lower down in towns also, but could never meet with anything beyond the most ordinary Amazon Parrots, which of course we did not want. Where the Brazilians cared for birds at all, it was their ambition to possess a Canary for which they would pay extravagant prices. It is no exaggeration to say, that apart from Amazon Parrots, more Brazilian birds are to be found in a dealer's shop at home than we met with in captivity in the *whole* of the Amazon valley, and the city of Pará included. I thought when we got down to this last port we could not fail to find some large bird dealers; but after enquiring everywhere, I at last unearthed one, known among

Ship's Captains by the name of "Monkey Joe," and monkeys were almost the only live stock he had, and very few of those too. Of birds, he had an exceedingly fine King Vulture which I felt sorely tempted to buy, and two or three Sun Bitterns, one of which I bought. One day I had offered to me in the Market, a lovely specimen of the Japim Hangnest (*Cassicus persicus*), but as the owner would not accept less than 60,000 reis (£2) for it. I declined the offer. This was the only bird I saw in the thousands of miles between Iquitos and Pará that I should really have cared for. I expect shortly to make another trip to South America, and perhaps I may be more fortunate next time. I think our dealers at home must get the bulk of their Brazilian birds from the Southern parts of Brazil, where the people being less wealthy are glad to do anything to make money: but along the Amazonian valley where the rubber boom has brought such enormous wealth to the country, the natives have no need to seek to make money by the wholesale exportation of birds.

(To be Continued).

WILD BIRDS' NESTING PLACES.

By H. C. MARTIN.

The correspondence in the December number of the Magazine regarding the encouragement of wild birds by supplying them with suitable nesting places reminds me of some further interesting points on the subject, about which I had had it in my mind to write to the Society before, and which came especially to my notice in the following way: Some time ago, while turning over the leaves of a German agricultural paper, I came across the circular of a firm who make a business of the manufacture of artificial nesting places for such insectivorous birds as build in holes in trees, etc., and whose presence and multiplication it is highly to the interest of farmers and fruit-growers to encourage. It is pleasing to bird-lovers to think that such a business, which one would at first regard as trifling, ridiculous almost, can be worth carrying on, proving, as it does, the existence of a very general kindly feeling towards the wild birds as well as a wide-spread appreciation of the valuable services they render—and in this, I think, we may well accept a little lesson from our enterprising neighbours on the Continent, for it is to be feared that in England the precise sentiment that makes the business possible, is far from prevailing

to the same extent and that here this small branch of trade would shew but a poor result.

As the protection of birds by this means seems to me to be "aviculture" in a literal sense (and a very good sense) the more note-worthy points about these "Nistkästen" will doubtless be of interest, the circular in question being drawn up in a precise and quite scientific manner.

The nests are made in four sizes (the various dimensions being stated with great exactitude in millimetres) and consist of natural logs suitably hollowed out, the entrance-hole being in the side, near the top; the smallest size is intended for the various Tit-mice, Creepers, Wrynecks, Fly-catchers, Nuthatches and other hole-dwellers of about the same size, the next for Starlings, Nuthatches and Wrynecks again, the Lesser-spotted Wood-pecker, etc., the third for the larger Wood-peckers and the Hoopoe, and the fourth for Owls. There is also a horizontal pattern and a shallow, more box-like one with a large entrance-hole, suitable for Wrens, Wagtails and other species which do not as a rule care for a deep nest.

The description reads more or less as follows: "This nest-box, the result of twenty-five years of practical experience, and observation, is a reproduction of the natural Wood-pecker's hole. The box itself consists of a sound piece of branch; the nest cavity, narrow at the top, widens out lower down and forms at the bottom a shallow cup. The entrance-hole is directed slightly upwards towards the inside, thus rendering it difficult for moisture to penetrate. The edges of it, particularly the lower ones, are slightly rounded off both outside and inside, and in place of the irregularities which are found on the sides of every natural hole, several angular ridges are cut so as to give the birds proper foothold. The roof-board and the back-board for hanging the nest up are of stout oak, the former being strongly fastened to the body with bolts and the latter with bolt and wood-screw. The roof-board must fit well all round."

"The top is made to take off so that broods of sparrows or squirrels can be turned out."

"The nests do not require cleaning out."

"Screw-nails are most suitable for fixing the boxes in position as they hold as well as a screwed-in screw and, not requiring to be driven in so far as ordinary nails, have the advantage of doing less injury to the tree."

HINTS FOR HANGING UP THE NESTS.

"The most suitable time for putting the nests up is from the middle of November to the end of February. If *necessary* one can do so in March or April also. They should be hung in an upright position but leaning slightly forward, *never* backwards, and they must be fixed absolutely rigidly. It is to be recommended to have the opening directed away from the most exposed quarter, *i.e.*, more or less towards the South-East. A little sawdust should be put in every nest before it is hung up."

The subject seems to have been studied in a practical way and with due regard to the habits and preferences of the various species; aviculturists may be interested to know that the prices asked range from 5d to 2/2 each, and it would seem that land-owners in Germany are in the habit of ordering a number at a time, as quotations are likewise given for the various sizes in dozens. Those who have the good fortune to reside in the country should find it interesting to try the experiment of making a few similar nest-boxes to place about their gardens; with a little ingenuity the most ordinary materials could be utilized for the purpose, and I have always noticed that the "constructive faculty" is almost invariably highly developed in lovers of living creatures, aviculturists more particularly.

 AVICULTURAL NOTES.

By JAS. COOPER.

HYBRID GEESE.

Some time ago there appeared in the *Field* an article by Mr. Tegetmeier *re* a cross Canadian Goose, which he said was greatly appreciated by Americans. I wrote asking if it was the same cross as I had myself obtained, *viz.*, between the Canadian Gander and the Italian White Goose, and if this hybrid would produce fertile eggs. I never could find any answer to my enquiry. I believe Mr. Tegetmeier said the cross was with a Chinese Goose. Is this bird the one which has a sort of bag beneath the lower mandible? I should like to have information on the subject if any member can enlighten me. If our Editor has Mr. Tegetmeier's address, perhaps he could induce that gentleman to reply. I have now sold the hybrids to the Swansea Corporation to place on their public lake.

DUCKS.

A very interesting bit appears this month from the pen of Mr. Bonhote. He warns against cats; but, in my small

experience, rats are the *bête noire* of amateur duck keepers. I speak, of course, of fancy ducks—in my case, Mandarins and Carolinas. I had some beauties, a pair of each sort, and succeeded in breeding three of the latter, rearing them to about three-quarter size on ordinary duck meal—sharps, and a few ants' eggs, and hard boiled egg—nothing more. The rats took the lot, both old and young. These ducks are such lovely pets, I am tempted to go in for more, but how to keep out rats—unless in runs, covered in entirely with rin. mesh net? I am about to erect a Dove aviary, 60ft. by 20ft. and 9ft. high. I think I shall put in a shallow concrete pond, and introduce some Ducks also. Rats run up wire netting, so a 3ft. netting would be of no use against them. I never had any trouble with cats, in fact I used to like an old cat, I had with my first bird aviaries, with me when on mouse expeditions, and she never looked at a bird, but it was a bad time for the mice.

DOVES.

These are most interesting birds for amateurs; at the same time I must own they are very disappointing, being so very pugnacious. They must have a very large flight or be kept in pairs. The Bronze-winged Crested Dove breeds very well: five broods in a season being a common thing. One season I had five of the Green-backed Doves of India; but I find others are not so fortunate. I believe if a pair of really healthy birds are given a quiet aviary, they are easy to breed. I have been greatly troubled by having their eggs continually sucked; a friend says it is mice, but I fancy it is one of the Weavers. Could anyone throw light on this subject? Could mice break and suck eggs? I find many birds very pugnacious to Doves, especially Parrakeets. I have got three Passerine Doves; but they are very wild, and I am afraid when I turn them out they will do no good. The description of these Doves, a short time ago, by one of our members was very good.

AN OUTDOOR AVIARY.

By FRANK F. LAMBERT.

The following description of an outdoor aviary and its inhabitants may interest some of our readers.

The aviary is a wooden shed 15ft. long by 5ft. deep, height 7ft. 9in. at back sloping to 6ft. at front, which is open for its entire length except a 9in. board dropping from under the eaves.

The outside is covered with felt, and it is whitewashed inside. Attached to the front for its whole length, and extending 8ft. outwards, is an open run, covered with a double wire netting to protect the birds from cats, etc. In the open run there is a very shallow concrete basin with a fountain jet in the centre, fed by waterworks water, which can be turned on from the outside at will. Inside, at the back, is fixed a nest of "pigeon holes" and a long self-supporting hopper filled with canary seed. There are a few evergreens and fir branches about, but otherwise there is no protection from the weather and no artificial heat. The aviary is situated under a young lime tree, and stands quite apart from all walls and buildings; it faces due South.

The food consists of the pure canary seed contained in the hopper mentioned above, a handful of mixed oilseeds (rape, linseed, and hemp) thrown down occasionally on the ground; a little greenmeat; and the fountain is turned on every morning to give fresh water for drinking and bathing.

The following birds have lived in perfect health in this aviary during the winter, and seemed no worse for the continuous and very severe frosts and blizzards we have lately experienced. The only bird lost was one of the Bengalese, which I have had some time and which was of "uncertain age."—

Canaries (hens), Budgerigars (some of which were bred in the aviary in '99), Napoleon Weaver, Pink-faced Weavers, Spice Birds, Bengalese, and the hybrids of the last two species bred in the aviary in '99; St. Helena Waxbill, Bullfinches, Siskins, Chaffinches, Bramblefinches, Twites, Linnets, Redpolls, Goldfinches, Java Sparrows, Mules (Linnet-Canary and Siskin-Canary), bred in the aviary.

REVIEW.

"British Birds: Their Successful Management in Captivity, with other allied information for Fanciers." By Dr. J. Denham Bradburn. Second Edition, revised, enlarged, and illustrated. Price 1s. nett; post free 1s. 2d. "The Feathered World," 9, Arundel Street, Strand, London, W.C.

That the number of aviculturists who now attempt to, and largely succeed in, keeping healthy and happy in captivity British birds, which formerly seldom long survived, is largely on the increase, is shown by the experiences which have been related in our pages. Dr. Bradburn's experience in this branch of aviculture seems to have been very large. His instruction

on feeding, "how to procure British birds," and on hand-rearing is minute and practical, and therefore valuable.

We are glad to find that Dr. Bradburn does not encourage the capture of those birds which can not be hand-reared and when captured seldom survive long. The little volume has good illustrations of forty-six species, and we can generally recommend it to beginners in this special branch of aviculture.

ZOO NOTES.

By J. LEWIS BONHOTE.

VI.—FEBRUARY.

Feb.	5	1 Spanish Blue Magpie— <i>Cyanopoli</i> <i>cooki</i>	Spain.	Western Aviary
„	10	3 Indian Dhyal Birds— <i>Copsychus saularis</i>	„ „	„
„	14	1 King Vulture— <i>Gypagus papa</i>	Rio Purus.	Eastern Aviary.
		1 Weka Rail— <i>Ocydromus Australis</i>	New Zealand.	„ „
„	20	1 Red-crested Cardinal— <i>Paroaria cucullata</i>	South America.	Western Aviary.
		1 Undulated Grass Parrakeet— <i>Melopsittacus undulatus</i>	Australia.	Parrot House.
„	23	1 Indian Darter— <i>Plotus melanogaster</i>	India.	Fish House.
		1 Indian Pied Hornbull— <i>Anthracoceros malabaricus</i>	India.	Eastern Aviary.
		1 Jackal Buzzard— <i>Buteo jahal</i>	S. Africa.	Kites Aviary.

Once again the number of arrivals this month leaves me practically nothing to write about; none of them calling for any special comment. My visit this month was, however, made in delightful warm, spring weather, and the birds generally were looking their best, although as yet, there were no signs of breeding. I went round the new Crane House, built some four years ago, which contained a very fine collection of Cranes, Emus, Cassowaries, and Ostriches. The pens are all small, mostly containing a pair, or perhaps only a single bird, which one can see and observe in comfort. This brings me to the question of foreign Zool. Gardens as compared with our own; I have visited a fair number of European ones, and the great difference between the British and the foreign is, that in the former one sees fine and commodious buildings, and in the latter fine specimens in small and unpretentious aviaries, I do not mean to imply that there are no good specimens in London, for of course there are hundreds, but the fact remains, that with all

our beautiful houses and aviaries we do not keep many birds which are commonly kept and thrive well abroad.

The climate may have something to do with it, but I feel sure there is too much miscellaneous crowding of widely different birds in large aviaries, with the result that the weaker, which are also as a rule the scarcer species, die off, leaving only the commoner kinds. Abroad, most of the smaller birds are kept in moderate-sized cages, each kind to itself as a rule, or two or three allied kinds together, after the style of our birds in the Parrot House, but of course in more suitable cages. The advantage of keeping birds like this is, that each individual can get personal attention, little extra dainties if it should appear unwell, a warm bath or none at all in cold weather, and so on, trifles perhaps, but trifles that make all the difference between a bird living, or merely existing; of course it may be objected that ordinary people do not have time to look after so many cages, to which the obvious reply is that they should not keep more birds than they can comfortably look after, while as to birds breeding, there is more chance of their doing so in a moderate-sized cage in *good* health, than in bad health in an aviary. I am naturally chiefly referring to the rarer, and more delicate species, the hardier ones will thrive anywhere.

Last month I promised a few more particulars of the new bird house at Hamburg (not Berlin, as stated), and here they are. The house is built in the form of a long verandah (facing due south), having shutters which can be put up in case of bad weather. It is entirely divided up into small cages, of which there are 88, and in these are housed 105 species of *Passeres*, natives of Germany. It will be noticed that almost each species has a cage to itself, where they should do remarkably well; full particulars of this house are given by Dr. Bolau. (*Zool. Garten*, xl., p. 1). From the lesser to the greater—I have just come across the following notice relating to a new aviary in the Central Park, New York, it is a large structure, 152 feet long, 72 feet wide, 155 feet high, containing a large pool of water 100 feet long. The menagerie situated in the New York Central Park is a very small and unpretentious place, and contained, when I visited it, chiefly N. American mammals, with only a very few birds, which, however, were in very good condition, and well looked after. I presume this aviary will be for large birds, as the smaller kinds would hardly ever be seen. I know, however, nothing more about it than I have stated above.

CORRESPONDENCE.

BIRDS FOR PHEASANT AVIARIES.

SIR,—I have a series of Pheasant aviaries with mesh small enough to keep in birds not less than Budgerigars. These cages, five in number, face S.W., and are each about 10yds. long, 4yds. wide, and 3yds. high. They are built against a building and, for about 3yds., have a glass roof; they are open in front, except for a range of windows about 18ins. high, that keep out driving rain. Under shelter, the floor is cement; outside, earth with a few shrubs.

I should like advice what birds would do and breed best. The Pheasants apparently do not interfere with small birds. I think of one compartment for English birds, another for Weavers, and a third for Budgerigars; but perhaps the Weavers and Budgerigars might do together?

I should be glad of any suggestions from you or other readers of the Magazine.

GEO. JENNISON.

The following answer has been sent to Mr. Jennison :

If the wire mesh is less than an inch (*i. e.*, $\frac{3}{4}$ -mesh) you can not only keep Budgerigars and all true Weavers, but even Ribbon-finches, Mannikins, and probably Parson-finches; but I doubt very much whether 1 inch mesh would be small enough to keep Budgerigars prisoners.

You might try Weavers and Budgerigars together (I think with perfect safety) in such extensive aviaries.

Of British birds the most interesting to keep are the soft-food eaters, such as the Wagtails, Chats, Redstart, Blackcap, and Garden Warbler; and, if you do not object to the daily preparation of a pan of egg, ants' cocoons, and biscuit, with a little fruit, I am sure these birds will give you far more pleasure than the few finches which Great Britain can boast of. If you prefer seed-eaters, try the Cirl-Bunting, Snow-Bunting, and Reed-Bunting.

As with British birds, the foreign insectivorous forms are far more pleasing in many ways than the seed-eaters: such birds as Bulbuls and Hagnests would look most attractive in a thirty-foot aviary; and if you secured pairs, I see no reason why they should not be bred. Common as they are, Java-Sparrows are very suitable for such an enclosure, and, being easily bred, you could soon secure a good stock: Necklaced Doves also, which will breed in boxes like ordinary Barbary Doves, would be worth keeping.

A. G. BUTLER.

ZEBRA-FINCHES EATING THEIR EGGS.

SIR,—I have a pair of Zebra-finches nesting. The hen laid an egg on the morning of March 10th—the first she had laid. A little later I noticed both birds in the nest eating the egg, and there was not a trace of it left a little later still.

These birds nested about six weeks ago, when I had them in a large cage with other birds, and the same thing happened then; but I thought probably they had been annoyed and disturbed by the others, so this time, as soon as I saw they were building, I caught and put them into a breeding cage, thinking perhaps they would do better; but so far the result has been the same.

Is there any remedy for egg-eating? I should be much obliged if any other members of the Avicultural Society could give me any advice on the subject. Perhaps these birds only do well in a large aviary when nesting; but last year a pair of Bronze-wings laid eggs and would have hatched them out if they had not met with an accident a few days before they were due to hatch. They were separated from the others and put into a cage by themselves, and as they did so well I thought the Zebra-finches would do the same if kept quiet. I feed them myself, and I am very careful not to disturb them.

F. W. ROBERTSON.

The following answer was sent to Mrs. Robertson :

When once these little Grass-finches begin to eat their eggs, I believe there is no remedy but to get rid of them and buy a fresh pair. I never had a Zebra-finch which did this, but I have always kept this species in a tolerably large aviary with many other birds, so that its time was pretty fully occupied in defending its nest. In an aviary the Zebra-finch breeds throughout the year, and rarely fails to bring off at least one or two young.

A. G. BUTLER.

HYBRID PARROT-FINCHES.

SIR,—At the Crystal Palace in February, 1899, and at each Bird Show held there since, as well as at Balham and the Aquarium, one or more pairs of Parrot-finches were to be seen having a green body, a blue forehead, and a red throat and tail. These have been constantly spoken of as Tricoloured Parrot-finches.

I should like to point out that this description is not strictly correct. Of course any bird of three colours may be called tricoloured, but the species hitherto known as the Tricoloured Parrot-finch (*Erythrura trichroa*) has no red throat.

The birds referred to are hybrids, the parents being the male ordinary Parrot-finch and the female Tricoloured Parrot-finch. This will explain the non-appearance of the birds in the Cat. Birds Brit. Mus.

L. W. HAWKINS.

PARROTS AT THE PALACE.

SIR,—I was glad to read the few interesting remarks in last month's Magazine by the Hon. and Rev. F. G. Dutton, and regret having to share my views with the hon. gentleman that the Parrot classes made an exceptionally poor show.

One was obliged to ask where were the Birds; likewise the Exhibitors? Whether it was in consequence of the severity of the weather, or the gloom throughout the country occasioned by the War, are questions that might be raised.

In my opinion much is attributable to two impediments, *viz.*, exorbitant and unjust Railway charges, and inadequate Prize money; and until these matters are rightly adjusted, there is little inducement for those desirous of giving us a good exhibition of the larger Foreign Birds that must necessarily be shown in serviceable and heavy cages which means a serious railway expense for long distances, disgusting the Exhibitor at the close of the Show that he has incurred a balance on the wrong side.

I strongly object to withholding prizes in any section unless there is insufficient merit, and that, I maintain should be left entirely to the discretion of the judge; but there are authorities overruling judges at most shows, consequently prizes have to be awarded according to orders given. This is a means of cutting expenses down closely.

It certainly appears unfair to an Exhibitor when a premier honour is withheld in a class containing two exceptionally rare and beautiful specimens, both being of nearly equal merit. There is no alternative even then but to follow instructions. A difficulty at most Shows, even under good management, is the exceptionally heavy expenses, and Committees have as much as they can do to meet their liabilities.

In going back to the Palace Show of 1888, I remember one class contained 25 Parrakeets, a grand lot worth going a long distance to see; nine entries in African Grey Parrots, another display not met with now. Amazons and other large Parrots also showed up well; Cockatoos were not forgotten being well represented in the two classes in '87 numbering 21, which included some magnificent specimens, such as the great Salmon-crested, Blue-eyed, Goffin's, Red-vented, etc.

I sincerely hope the Palace Show may retain the excellent reputation it has held for so many years, and not pass into oblivion; as all interested in aviculture derive much pleasure and profit when visiting the great National Exhibition of the year.

H. T. T. CAMPS.

THE RED-FACED FINCH.

SIR,—The white feathers acquired by Mr. Hawkins' bird are, I think, a mere "sport," and do not indicate any specific or sub-specific difference from the normal type. Birds of the genus *Pytelia* seem very liable to this partial albinism, but it is also seen in many other species, especially the Avadavat and the Cordon bleu. In most cases it is no doubt due to age, but I question whether age is always the cause. It appears to be analogous to grey hairs in man.

HORATIO R. FILLMER.

THE BLACK-HEADED BUNTINGS AT THE ZOO.

SIR.—In his notes on the additions to the Zoological Society's Gardens for January, Mr. Bonhote omits to comment upon the most interesting and unusual event of the breeding in the Western Aviary of Black-headed Buntings (*Emberiza melanocephala*) during that bleak month. The keeper there informs me that he had no idea that this pair were nesting, until one day (about Jan. 15th) he discovered one of them feeding a full-fledged youngster, which chirped like a young Sparrow and in colour resembled the hen Bunting. The nest was found amongst the ivy, in the outer part, built upon the remains of a Song-Thrushes' nest of last year. When discovered it was quite empty, and probably all the eggs but one had been eaten by other birds.

The only food that was supplied to the birds in this aviary consisted of the ordinary seeds and a small quantity of the usual soft-food mixture.

It is somewhat remarkable that a partially insectivorous species which, in a wild state, inhabits Southern Europe in Summer and India in Winter; and which is said to feed its young entirely upon insects, should

successfully rear a young bird in an English aviary in January, when insect-food must have been exceedingly scarce, if not entirely absent, and when the temperature was surely far below that ever experienced by these birds when wild.

It would seem from the foregoing that this species might breed freely in captivity if located in suitable outdoor aviaries. A pair in my possession appeared anxious to nest last Spring, very soon after I obtained them, and when they could hardly have been caught more than a few weeks. I shall hope to succeed in breeding them this Spring. The male very frequently utters his song during the breeding season, and I have sometimes heard it quite late at night. Presumably the male of the pair at the "Zoo" must have commenced his spring song some time before Christmas; mine is now (March 4th) just commencing his.

D. SETH-SMITH.

[At the time of writing the above I had not had an opportunity of seeing the supposed young Bunting, but, having noticed with interest the report of its arrival, in the official list of additions to the Society's collection (a copy of which appeared in the last number of this Magazine), had corresponded with the Keeper of the Western Aviary, on the subject, and had thus obtained all available information.

I have since visited the Gardens, and viewed the supposed young Bunting from a distance of some ten or twelve feet, the nearest approach it would allow, and have now little doubt that the attendants at the aviary have been entirely mistaken in their identification of this bird, and that the Buntings have never bred at all.

The bird which is supposed to be a young Black-headed Bunting is, in my humble opinion, nothing more or less than a female Cut-throat Finch. How it got into the aviary, is a mystery of which I do not pretend to offer a solution, for I am told that this species is never kept in this aviary.

The Keeper now tells me that he has never actually seen the Buntings feeding it; but on several occasions saw them close to it. Thus he jumped to the conclusion that it was their offspring and reported to the Society's headquarters that they had successfully bred in the aviary, in the middle of January. He then searched for the nest and discovered, what he supposed was it, on the remains of an old Thrushes' nest.

It is passing strange that such a mistake should ever have been made, but, unless I am greatly at fault, it still remains to be proved whether *Emberiza melanocephala*, will breed successfully in captivity.—D. S.-S.]

A PROPOSAL TO EXTEND THE SCOPE OF THE MAGAZINE.

SIR,—I am very pleased to see the increase in the size of the *Avicultural Magazine*, and hope that it will be maintained.

May I be allowed a little space to air a crotchet of mine, which I know is not regarded with much favour in official quarters, but which I think to be worthy of very careful consideration?

The *Avicultural Magazine* has been, and is, a great success, and I want it to become a still greater one. The chief difficulty has been its extremely limited circulation, and there is no reasonable prospect of this being materially increased unless it appeals to a wider circle of readers. Has not

the time arrived when we may safely and wisely open our pages to other living creatures besides "foreign and British birds"?

There are two directions in which we might extend our borders, and I should like to see a movement made in each of these directions—but they are quite distinct, and the adoption of one would not necessarily involve the other.

First, I should like the Magazine to be open to papers on rare or foreign Mammals, Reptiles, and Fishes: discussed, of course, from the point of view of the keeper of living animals, and not from that of the collector of dead specimens. I believe that this would add largely to the interest of the Magazine, and considerably extend our circle of readers.

Secondly, I should like the ban against Canaries to be abolished. When the Avicultural Society was founded, aviculturists were a feeble folk, and there was a well-founded dread of an invasion by the Canary Fancy. All that is of the past, and Canaries could now never occupy anything more than a subordinate position among the objects to which the Society should devote itself. But there is no reason why they should be excluded altogether, and in my opinion their exclusion is unscientific and absurd. There is no doubt but that the publication of a few articles on Canaries in our Magazine would do more to extend its circulation than any other expedient. There is a great work to be done in the Canary world—the "fancy" is honeycombed with trickery and cruelty—there is no publication open for the discussion of Canary topics except the fancy papers—and there must be a large number of people who would welcome a Magazine which would treat of Canaries from a less personal and more scientific point of view than that of our weekly contemporaries. It has no doubt become the fashion for the aviculturist to look down upon the canary-man: it would be well for us to consider whether there is any ground for this contempt. To begin with, keepers of British and foreign birds have no exclusive right to the name of aviculturists, which includes all who devote themselves to the culture of birds. On the score of humanity, the culture of Canaries is to be preferred to that of nearly all other species, as it does not involve the capture of wild birds. On the score of science, there is probably scope for as much knowledge and skill in the breeding of high-class Canaries as there is in the feeding and management of rare foreign birds.

At all events, no harm can be done by the discussion of this question, and I think it would be useful if the members would give expression to their views upon it.

HORATIO R. FILLMER.

I am quite sure that no good would come to the Society by doing what Mr. Fillmer suggests, not only would the published Organ degenerate into a mere fancier's Magazine without any pretention to a scientific status, but it would cease to be purely Avicultural, which is one of its greatest attractions. A fancier is in some sense an aviculturist but an aviculturist is not necessarily a fancier. It is certain that any radical change in the subject matter of the Magazine would result in the retirement of all the scientists amongst our Members.

ARTHUR G. BUTLER

THE SHÂMA.

SIR,—I am anxious to try a Shâma, but, before doing so, would like to know, 1st, if I could successfully keep one in a large cage in the kitchen; 2nd, whether they are delicate, and what food it would require; 3rd, would it be likely to sing and become tame under the above conditions?

I have read Mr. Phillipps' account; he says, "Put them in a garden aviary," &c.; but I regret I have no garden aviary.

As they are rather expensive, I should like any other information you could give.

CHARLES SPEED.

The following reply was sent to Mr. Speed—

Mr. Bonhote has asked me to answer your letter.

A Shâma may be kept successfully in a large cage, but it should be a box cage if possible. Nevertheless the cage should be its home, not its prison.

A kitchen, as a rule, is a very bad place to keep any bird in; but there are kitchens and kitchens. An ordinary living room, with a fire during the day in cold weather, will do fairly well, but fully three-fourths of the cage should be warmly covered at night; and he should be removed from the room, in cold weather I mean, when the window is opened. In warm weather, the more fresh air he has the better; but draughts should be carefully avoided.

For a foreign insectivorous bird, the Shâma is not delicate; but neither can it endure much cold. A little half-open box or shelf, with hay, in a sheltered corner of the cage (if the latter be large enough) is often a great help in cold weather.

It is an insectivorous bird, and must be fed accordingly. I will not be so rash as to suggest which of the many foods recommended in our Magazine may be the most suitable:—but beware of too many perfectly dry ants' cocoons! In addition to the food, which, with clean water, in clean non-metallic receptacles, should be always present inside the cage, give as many spiders and small insects as possible. Unpoisoned cockroaches will do famously. Place the trap (the "demon" is the best) on the floor, open the cage door, and the Shâma will quickly learn to help himself. With a mealworm, he can be easily enticed back into his cage.

If you cannot obtain insects, carefully scrape a little cooked mutton, and mix it with the ordinary insectivorous food. Avoid anything doughy or indigestible, or your bird may have a fit. Also avoid gentles and wasp-grubs; and mealworms should be given sparingly—as a treat. If he should look lumpy, add some fluid magnesia to the drinking water. Let him bathe regularly.

If you understand birds, the male Shâma will join you at meals, eat off your plate, follow you about the house (mind the windows), become as tame and impudent as ever you like, and will make a really charming pet. The males sing freely, and may be taught to whistle tunes correctly; but most of those which reach this country have been hand-reared, and then the song is often poor and monotonous.

Let him have plenty of exercise, clean water, and *plain food*, do not over-expose him to cold, and he may live a dozen years and more.

REGINALD PHILLIPPS.

THE

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LORIES, LORIKEETS, AND OTHERS.

By REGINALD PHILLIPPS.

At page 103, Mr. Fillmer refers to a Purple-capped Lory in his possession laying an egg. I agree with him that the laying of eggs by Lories and Lorikeets in this country is unusual. This may be, as regards the former, simply because Lories are so seldom given the chance. With Lorikeets, however, my experience (so far as it goes) teaches me that while the males, if healthy, are always (more or less according to the season) ready for nesting, the reverse is the case with the females, who, however apparently willing, seem never to come into full nesting condition, presumably on account of the coldness of our climate. Moreover with me the male, after every possible endeavour to bring his own proper female to book, sooner or later has turned upon her with such persistent savageness as usually to render it necessary to remove her, in order to save her from serious injury. The male will, in any case, completely desert her, and with mad recklessness will endeavour, by fair means or foul—usually the latter, for a more selfish bird it would be difficult to find—to obtain possession of some other female, a Conure from preference, whether the latter may be unattached or otherwise. In my aviary this was specially the case with a pair of Ornamented Lorikeets, *Trichoglossus ornatus*; but the female was not a very good specimen, although quite healthy.

Many years ago I had a faultless pair of Purple-capped Lories, flying loose in my birdroom, with window opening into the garden aviary. In a few months' time they became as dangerous as a couple of Goshawks. Then they commenced nesting, and took entire possession of the birdroom, not a single bird daring to enter. This was too much; and I was compelled to part with them, which was a misfortune.

In March, 1896, I obtained a pair of Musky Lorikeets, *Glossopsittacus concinnus*. In a year or so the male deserted the

female under the conditions already stated, and, in the absence of Conures, went after some of the Brotogerys. For some months, not being able to obtain a female, each being well protected, he struck up a close friendship with a male Tovi (*B. jugularis*), whom he continually fed from the crop. The great desire that this bird always had of feeding another has made me suspect sometimes that the action may have relieved the system, and thus have contributed towards his length of days, of which more anon. The Tovi was killed by a Blue Pie, whose hatred of the chattering Tavis no words can express; and then followed a period of irregular love-making and warfare, when, owing to an unhappy accident, a vacancy unexpectedly occurred. On and from the 28th November, 1898, he took forcible possession of a female Golden-fronted Parrakeet, *B. tuipara*, to the great terror of the lady, who trembled for her life. After a while the Tuipara became less terrified at the demonstrative wooing of the Musky, and, since, the two have been literally inseparable. The Tuipara had always seemed as sensitive to our bleak climate as the female Lorikeets, and I ceased to hope for the appearance of eggs. Last autumn they took possession of an ordinary travelling cage hanging up in the birdroom some five feet from the floor, in an exposed situation near the window; but I did not specially interest myself in their proceedings. On the 13th March of this year, and up to and including the 18th, both the birds kept to the nest, only rarely leaving it for a brief half-minute or so: during these days they invariably came off together. On and after the 19th, the Musky came off during the day, but kept a sharp watch on the nest, usually from some quiet corner several yards away, and uttered a little squeak on the approach of any one; but never once did the female allow herself to be frightened from the nest. The Musky returned to the nest to roost every evening about 6 o'clock.

Four eggs were laid, apparently on alternate days, round ovals of large size, larger than those of the Golden-shouldered Parrakeet, but not exhibiting the slight inclination to quince-shape of most of the eggs of the Tovi with which I was favoured some years ago. They were all clear.

Whether the Musky fed the Tuipara whilst she was sitting I do not know. From the 19th up to the 31st—on which day I took the eggs—only on two occasions did I see her off the nest; on the first he was feeding her, on the second she was feeding herself.

That this Lorikeet should have lived over four years in my

possession is I suppose remarkable, for of all the Lorikeets the Musky has perhaps the worst record for fits. A lady, who was many years in Australia, told me that the Colonists seldom attempt to keep it. One she herself had tried in Australia soon died in a fit. Even at the London Zoological Gardens (I am writing this without book, but I think correctly), where with some of the Lorikeets they have been very successful, they seem to have been rather the reverse with this species, judging by the dates of receipt given from time to time in the Parrot House. I need hardly say that my Musky was not fed on seed, to which, indeed, he always had access, but which he never touched so far as I know. Talking about food for Lorikeets, I chanced some four years ago to visit a shop just after a cageful of these birds had been fed. The food consisted of thick slices of bread and butter, which they attacked as greedily as a lot of hungry pigs attack their evening meal.—Now, please, do not go off and say that I recommend bread and butter as a food for Lorikeets !

My Musky became very tame and confiding, often flying on to my head, and also on to my hand when I brought out his sop in the morning. So little did he fear me and my threats that nothing would induce him to go to bed before bed-time. On a cold day I would sometimes endeavour to drive the birds into the shelter of the birdroom before dusk : seating himself on a high perch, he would defy me. I would try and frighten him with a long-handled net, placing the net over him ; but he knew I wouldn't hurt him, and stuck to the perch. When the proper time came, however, he would give a wild derisive shriek and dash into the birdroom. Nevertheless I betrayed his trust in the end, for when, on 31st March, I passed him and the Tuipara on to another member of the Society, he allowed me to catch him almost without a flutter.

The members of this species are not nearly so savage as the *Trichoglossi*. Except occasionally with some of the *Psittaci*, in a large aviary they do not interfere with other birds, except indirectly by going into their nesting boxes. The same remark applies to the Scaly-breasted Lorikeet, *Psitteuteles chlorolepidotus*, if I may judge by a single pair which came into my possession many years ago. Before they reached me they had been fed and moulted on canary seed alone, and had lost nearly all of their conspicuous markings, being mostly yellow-green. The female, too, was in a decline, and I failed to save her. The want of proper food may or may not have been the cause of the dull plumage of the two and of the death of the one. No Lory or Lorikeet with me has ever lost an atom of colour.

Mr. Goodfellow tells us (page 125) of the Tovi Parrakeets following him and the Indian women, and always wanting to be with him. A pair I had for some years treated me in a similar way, following me about the aviary, perching on head, shoulders, any spot on which they could obtain a footing. This looks very pretty on paper, but it did not work out quite prettily in practice. The female was a spiteful little wasp, and would seize hold of any exposed piece of flesh she could reach, my ears and neck being her favourite morsels; and the male, excited and incited to evil by this Jezebel, would join in most heartily. The more I dodged about and tried to beat them off, the more waspish and Jezebelish would they become, shrieking all the while at the top of their voices like a couple of infuriated women. The male was really a good-hearted fellow, but was superbly chivalrous, always standing up for his wife. For some years, off and on, a six-foot flight cage in my dining room was their home: and the end two-foot door I would innocently open and would attend to the food, the male sitting perfectly still on a perch opposite and rather below me, the female being on her eggs at the other end. On one such an occasion the male suddenly dashed at my forehead almost with the weight and violence of a thrown-up cricket ball, half stunning me and making quite a respectable wound, although the beak did not readily catch hold of the tightly-drawn skin. For a few days I was very cautious, but, finding him quite quiet, once more gave him an opportunity, of which he promptly availed himself. Darting straight at me like a bolt from a cross-bow, without cry or the slightest warning, he seized me sideways across the centre of the upper lip, a little below the nose, and hung on like a bulldog, the blood flowing inside the mouth testifying to the bird's long upper mandible having gone well home. I think it is in "Verdant Green," in a Town and Gown row at Oxford, that we are given an account of a Proctor peeping cautiously out at a side door into the street, and having his claret tapped by a playful member of the many-headed. As he held his handkerchief up to the damaged member, in agonizing tones he announced to the sympathizing undergraduates around him, "Gentlemen, this is painful, this is *very* painful." Now, I have been bitten by many birds and beasts, under varying circumstances, and in various parts, but it is seldom that any creature has found out such a tender spot in such a searching manner, and most feelingly could I have declared to an assembly of my fellow aviculturists, "Ladies and gentlemen, this is painful, this is *very* painful." I observe that some of you are laughing; well, if you do not believe me just try it for yourselves.

In the last instalment of his interesting paper, at page 126, I think Mr. Goodfellow has allowed his pen to slip. The Canary-winged Parrakeet is not *Brotogerys virescens* but *B. chiniri*. In the Zoological Society's List it is called the Orange-winged Parrakeet, *B. xanthopterus*, the latter scientific name being the more common. *Brotogerys virescens* is the rare White-winged Parrakeet, or the Yellow-winged Parrakeet as it has been unhappily named by the Zoological Society.

NOTES ON THE PLOCEIDÆ.

By F. FINN, B.A., F.Z.S.,

Deputy Superintendent Indian Museum.

1. PLOCEUS RUTLEDGII, THE SUMMER PLUMAGE OF *P. MEGARHYNCHUS*.

In the Proceedings of the Asiatic Society for July 1899, p. 77, will be found the diagnosis of an Indian species of Weaver-bird which I there named, believing it to be new, *Ploceus rutledgii*, after Mr. Rutledge, from whom the types were obtained. Mr. Rutledge would not sell the birds until assured that they would not be killed, and I am glad to say that his humanity has been justified by a very interesting occurrence. The birds, being kept alive, have in due course assumed an undress plumage very similar to that of the ordinary Bayas (*P. baya* and *P. atrigula*) but differing from this in most of the points which Mr. Hume pointed out as distinctive of his *P. megarhynchus*. As they also agree closely with this form in measurements, and were obtained from Nynee Tal (the types of *P. megarhynchus* having come from Kaladoongi, below that place) it seems to me obvious that my *P. rutledgii* is merely the summer plumage of that species, hitherto unknown, no doubt, by reason of the unhealthiness of its Terai habitat in the season when the birds are in full feather. Under the circumstances the promised plate seems to me unnecessary, and therefore I merely append below a description of this summer or breeding-plumage.

General colour bright yellow (brightest on head and dull impure on rump), with the following exceptions:—lores, round the eye below, and ear coverts, dark brown; a dull-black patch on each side of the breast before the shoulder; nape and hind neck, dull blackish brown; upper back, wings, and tail blackish brown, each feather edged, entirely or externally, with light brown, on the uppermost part of the back with yellow; under wing-coverts dirty white.

Iris bright light brown; bill black, fleshy-white at base; feet dark brownish fleshy, claws blackish horny.

Both specimens, as noted in P.A.S.B. (*loc. cit.*) were similar but one was slightly duller than the other. It is also slenderer in make, though quite as long, and has never sung or attempted to weave, even when separated from its fellow, which continually uttered, when "in colour," its harsh unpleasant song, and was an indefatigable weaver when it got grass to work with; it used to stuff bits of earth in the work. It still occasionally sings and weaves, and sometimes flies wildly about, as it often did when in colour. The other bird has always been much milder in demeanour, though more restless, and less tame. It was nearly a month later in completing its change of plumage; but latterly I have seen it also behave more like a normal male.

The brightest bird, the singer and weaver, measures: length about 6½ in.; bill from gape about 0·8; wing about 3 in.; tail about 2·1 in.; shank about 0·95 in. The tail is much more graduated in winter than in summer plumage, and the bill is in the former fleshy, horny on culmen and tip, instead of black as in the full-plumaged bird.

It may be noted as a remarkable fact that, though the primaries of these birds had been plucked before they came into Mr. Rutledge's possession, and grew again soon after the specimens were acquired by the Museum, yet these new quills were again moulted and replaced in the ordinary way with the other feathers.

A very characteristic point of *Ploceus megarhynchus* is the long tail and short wing; as is shown by the measurements of this specimen and of Mr. Hume's, the difference between the length of the wing and tail is only about the length of the shank; in this point, as well as in the large amount of yellow in the plumage, *P. megarhynchus* approaches *Ploceella javanensis*. It also possesses, like that species, nuchal hairs, but so do all the Indian species of *Ploceus*, though the absence of these insignificant filoplumes is given, both by Mr. Oates in the Fauna of British India (Birds, vol. II, p. 174) and Dr. Sharpe in the British Museum Catalogue of Birds (vol. XIII, p. 406) as a character of the genus *Ploceus* as restricted by them.

It is not surprising that these authorities both united *P. megarhynchus* with *P. atrigula*, for no doubt there is a certain amount of intergradation between them, similar to that which occurs between *P. atrigula* and *P. baya*, as noticed by Mr. Hume (Stray Feathers, vol. VI, 1878, p. 400).

There are in the Indian Museum several specimens of *P. atrigula* showing an admixture of yellow with the buff of the breast, some of them procured by myself in Calcutta alive and kept so for a time to see if they would develop more of the yellow colouring—which they did not. Had I remembered this when I looked up *P. megarhynchus* and found that the types were in winter plumage and had been united with *P. atrigula* by the distinguished authors of the volumes of the “Fauna” and the “Catalogue” above quoted, I might have escaped following their very pardonable mistake which suppressed this magnificent species, by far the finest of the Asiatic Weavers.

Excluding, then, the two very easily distinguishable species *P. bengalensis* and *P. manyar*, typical males in summer plumage, of the remaining species, may be distinguished as follows :—

Size largest ; entire under-surface yellow,	..	<i>P. megarhynchus</i> .
„ smaller ; throat dull blackish ; breast buff,		<i>P. atrigula</i> .
„ smallest ; throat dull black ; breast yellow,		
abdomen white .. .. .	..	<i>P. baya</i> .

For the distinction of males in undress and females size will be the best guide, though this may not be very reliable in view of probable occurrence of many intermediate specimens.

NOTES ON THE ST. VINCENT PARROT.

(*Chrysotis guildingi*).

By Mrs. H. L. THOMPSON.

I have lived for five years in the West Indian island of St. Vincent, the home of the *Chrysotis guildingi*, but my personal acquaintance with the bird dates only from the time of the great hurricane of Sept., 1898. Before that, I had, when camping out with my husband at the head of a remote valley, heard the curious harsh cries of the Parrots, when they came down in the early morning from the high ground to feed, and just seen a glance of brown and orange wings in the trees. But the terrible destruction of the high woods caused by the great storm drove the birds to lower ground and even into the cultivated parts round the villages to find food, and so weak were they from hunger and from the battle they must have fought with the wind, that a considerable number were easily caught by the natives, some of which were, I fear, eaten as very acceptable fare in that time of distress and starvation. Two of these Parrots came into my hands. They were very weak, but they were uninjured, and to

obtain a Guilding under other circumstances, it had been the invariable custom to bring it down with a gun, so that a perfect specimen was very rarely secured.

The Guilding is fully 19in. long, and has a wide spread of wing. The beak is light horn-coloured; the head pale yellow, deepening in shade towards a band of blue, green and mauve round the neck; the body and wings are mixed brown, orange and yellow: and the tail shows a peacock band. With the wings extended the bird is like a gigantic tropical butterfly. The eye is red with a black pupil, small and, I must say, unintelligent. The claws and beak are very powerful. No species of bird proves more clearly that individuals of a species differ fully as much as men and women of any one race. One of the birds brought to me, evidently a young one, took food from our hands at once. He was allowed to leave his cage from the first, and he shuffled about the house with perfect confidence, and quickly learnt the advantage of coming to meals with us. He showed no sign of fear or resentment and allowed his head to be stroked at once, and I bitterly regret his fate. We were all much occupied at the time, and by some mistake he was allowed to get into the trees a few days after his arrival, and he was killed in an attempt to get him back.

The other bird, which I brought back to England last month, was of a totally different character. He became attached to me and to my maid, but to all others, whether black or white, he showed fear and dislike. He showed no inclination to speak, but, on the other hand, he quickly accustomed himself to his modified form of captivity. His wing was slightly cut, and, with the other Parrots, he spent the day on a bamboo on the verandah, but during the hot hours he would wander about in the trees and bushes near. He had a cat-like objection to rain, shared, I noticed, by many other tropical birds. He would come down from his hiding place at once, if called by name. He was on good, if somewhat contemptuous, terms with my seven other Parrots, but he killed a tame Dove I had with one stroke of his beak. He took kindly to cake, but his favorite food was maize and ground nuts. I have known several other specimens in captivity, one of which, now in England, became extraordinarily tame and affectionate, though it does not speak. I know another, which has learnt to call certain names and to cry like a child; and I have heard of another, again, said to be a really good talker; but the greater number of those I know never attempt to speak.

My other Parrots were—a Mealy Amazon, a most talented and charming bird, with a great gift for reproducing native conversations, quarrels, preaching, songs, and laughter, without perhaps actually forming the words; two Blue-fronted Amazons, very different in markings, shape, and character; a Yellow-naped Amazon, a clever mimic; a Red-vented *Pionus*, tame and affectionate but no talker; a Senegal, which acquired a few words in a small, throaty voice; a Canary-winged Parrakeet, a fierce and fearless little creature, but absolutely devoted to the only two people for whom he had room in his heart. This little bird acted as watch-dog to his master to such purpose that the barefooted black servants had often to flee before his furious attacks.

With the exception of the Canary-wing, which had to be caged sometimes lest he should be trodden upon, the Parrots, though they could all fly more or less, were always at liberty about the house and garden, and would almost invariably come home at night or when called. One could thus learn something of their natural habits. I am not surprised to hear that some naturalists place Parrots very high, if not first, in the scale of birds. They show undoubted powers of memory, reason, discrimination among persons, determination, resource, sense of fun, and their power of speech is by no means their only attraction. I think, on the whole, the Double-fronted Amazon—a bird that comes to us from the little-known Island of Margarita—is the liveliest and most fascinating Parrot I know.

It would indeed be a thousand pities if the unique and beautiful *Chrysotis guildingi* were to die out, as has been the case with other rare Parrots; but from careful enquiries made recently, we felt assured that there is no danger of this calamity. The birds are to be found only in the high woods; they are said by the natives to go about in flocks varying from 20 to 30, but I think myself, from what I have heard from trustworthy sources, that the numbers would more probably range from six to a dozen. No doubt many perished in the '98 hurricane—the hurricane which, we fear, completely wiped out the smallest of the three species of Humming Birds known in St. Vincent—and some were destroyed by the natives in the weeks immediately following. But we heard that this year the birds had been seen in their usual numbers in their usual haunts, and, thanks to the inaccessibility of these wild parts and the lack of enterprise among the natives, their numbers are not likely to be sensibly diminished in the ordinary course of events.

BIRDS ABOUT BUENOS AIRES.

By R. A. TODD.

Having recently returned from a visit to the Argentine Republic, I feel it rather in the nature of a duty to communicate to the Magazine some notes of such observations as I was able to make on the birds of that distant region. I must premise, however, that my limited time there being rather fully occupied with business matters, my opportunities were very scant and I was only able to make two or three short expeditions outside the city of Buenos Aires. On this account the list of birds referred to will be found decidedly meagre, and it must not be supposed that the avifauna of the district is correspondingly limited, but that the times of quiet and prolonged observation so necessary to effect a close acquaintance with bird life were largely denied to me. The country generally is exceedingly flat, and but slightly elevated above the level of the Rio de la Plata, which, above Buenos Aires, divides into several branches, these branches again running in many subsidiary channels or creeks. Copses of Willow and Erythrina often line the watersides, and on the drier grass lands may be seen here and there small clumps of trees, usually Eucalyptus. Along the smaller creeks and tributaries are usually extensive beds of water plants and rushes, the latter growing some 12 feet high. About the Tigre, a branch of the Plata, are large orchards of Apple, Pear, Peach, Orange, and Lemon trees, the banks of the river being occasionally lined with tall and massive Poplars among the Willows. The character of the country, however, is generally bare and treeless; I should mention, though, that in the immediate neighbourhood of Buenos Aires planting has been somewhat extensive, and besides many large shady gardens there are along the railway line to the town of La Plata several fair-sized woods principally of Eucalyptus.

Lying in about 34° S. lat., the climate is warm; even slight frost is exceptional in the winter, while in the hottest month the thermometer may even register 100° F. in the shade, but this is unusual.

One of the most striking features of bird-life is the immense abundance of Carrion Hawks in the neighbourhood of the meat factories. These consist apparently of two species, one a large black eagle-like bird, the other decidedly smaller and of a generally greyish brown colour, exterior parts of the wings dirty white, respectively called Carancho and Chimango. The

Carancho appears to roost in trees; the Chimango seems always to settle down in the hollows in the open grass land and in this position has a very owl-like appearance. A long stretch of wire fencing with a single Carancho perched on each post, motionless, but with its large black wings half outspread to dry in the sun is a quaint and not unusual sight in the morning.

On telegraph wires may often be seen flocks of what I took to be Swallows, similar in colouring to our species but considerably larger in size. On one occasion I noticed these birds darting about under a wooden bridge over a creek, and suspected nests but failed to find any. Generally their movements were in all respects Swallow-like, especially when skimming over the surface of pond or river hawking for insects.

Of course Tyrants occupy a prominent position in the avifauna of the country. At the head of these must be placed the Scissors-Tail Tyrant (*Milvulus tyrannus*); its colouring is, indeed, quiet enough, white beneath, greyish above with black head and tail, but the outer feathers of the tail are prolonged to about a foot in length and it is in this that the striking appearance of the bird lies. When resting, which it usually does in some prominent position, the tail remains closed, but on taking wing the feathers are widely extended forming a most graceful object. Like others of their kind these birds have irritable tempers and a high courage; should a Carancho venture to alight on a tree already occupied by one or more pairs of Scissors Tails, they will attack him with great fury and pursue him for a considerable distance with contumely and blows. Though this is I believe supposed to be a purely insectivorous species, I once saw an individual hard at work eating Elderberries.

The Sulphur Tyrant (*Tyrannus sulfuratus*) is also a very common species, and goes by the names of "Bicho feo" or "Bien te veo" both representing its cry. On one occasion rowing on the Tigre in the evening, some tall Poplars on either side of the river were full of them and the air resounded with their loud cries, answering calls could be heard from the distance and gradually approaching as others came in from their hunting grounds to roost. These birds are said by Mr. Hudson to eat small Snakes, seizing them by the tail and killing them against a branch or stone.

Among the tall rushes in the creeks is the place to look for the handsome Red-headed Starling (*Amblyrhampus holosericeus*), usually in small flocks of about ten individuals. On the wing the head is carried stretched out well in front and

is very conspicuous. I have had one of this species for about two years in an indoor aviary, and find it easily kept on ordinary soft food, and a decidedly entertaining bird.

Also among reed beds is to be seen occasionally a smaller Starling like bird, black with half the wings, beak, and cheeks white; it only occurs singly and is shy and difficult to observe closely. It has a rather melodious note. Here too the Yellow-shouldered Starling (*Aglacus thilius*) occurs somewhat sparingly.

The Chingolo Song Sparrow (*Zonotrichia pileata*) is a very common bird on the grass lands, and is constantly seen perching on the wire fences along the woodsides. Of Finches, I only recognised the Green Cardinal, Dinca, and a species of *Sycalis*, probably both *S. arvensis* and *S. pelzelni*.

The Spur Wing Lapwing is frequent in pairs on the open ground. They go by the native name of *Teru teru*. These birds guard their particular domain with great jealousy, and should you trespass on their land they will pursue you, shrieking wildly, as they circle round your head almost striking you with their wings; it is said, indeed that they will sometimes inflict a not inconsiderable wound with the spurs with which their wings are armed.

In wet places I saw small flocks of Ibis-like birds, about the size of the Glossy Ibis, but blacker in colour and rather clumsier in build; they were rather shy, and it was not possible to get a very close view of them. Of Cranes, I noticed two species; one black, the other grey and white. The latter was often a very conspicuous object perched on the top of some low tree or bush. I once caught sight of a Kingfisher, but it was only a momentary glimpse in the shade, and I could not distinguish its colouring.

Pigeons and Doves were abundant, but I have never been interested in these birds and could give no guess as to their identity.

I must not omit to mention the Rhea, though those I saw were not wild but in a state of semi-domestication in a large park, which, however, gave all the effect of wildness to these noble looking birds.

I saw no Tanagers or Humming Birds, though I was told that the latter are very frequently to be seen about flowering trees and shrubs in the hot weather in January and February. Occasionally I observed a little brownish bird flitting about in the shade of shrubs, probably one of the Wood Hewers.

As an ardent Aviculturist, I, of course, diligently frequented the bird shops of Buenos Aires, of which there are

many, hoping to light on the White Banded Mocking Bird, or perhaps a nice cage full of Red Crested Finches. But my industry was in vain. There were Cardinals by the hundreds, Black Headed Siskins in scores, numbers of a Mocking Bird from Paraguay, hardly distinguishable from the N. American species, and any quantity of Canaries, besides S. African Weavers and Waxbills, but nothing of any interest. Of course the Siskins are interesting, but I did not feel at all tempted to risk bringing these delicate birds for a month's voyage, to arrive in England in January. There were a good many also of a species of *Spermophila*, something like the Lined Finch but duller in colour and not very attractive, but these mostly appeared to be in very uncertain health. I looked in vain for Tanagers or any interesting soft-billed birds.

THE WOOD-SWALLOW SHRIKES.

(*Artamus*).

By HENRY J. FULLJAMES.

Aviculturists who have, in the pursuit of their hobby, been led from time to time to try their hands at the keeping in captivity of many different species of birds will, even if their efforts have been confined to British birds, have found from their own experience, that some kinds are quite easy to keep in health and comparative happiness in cages, some kinds difficult, and some kinds impossible. In the latter category must emphatically be classed the Kingfisher and the Swallow. With regard to the first of these I am happy to say I do not write from personal experience, as I have profited by the known failure of others and have never tried to keep an English Kingfisher. Of the keeping, or, rather, the endeavour to keep, Swallows in cages, I can, however, speak from the results of my own attempts, as well as from what I have known of the fate of the unfortunate specimens seen in the past at our bird-shows. In this connection I should like to congratulate the National British Bird and Mule Club upon the evident result of their action in striking out the Swallow tribe from their original list of *cage* birds, inasmuch as that during the past season I think I have only seen one Swallow at a bird-show, whereas, until quite recently, a London show was rarely to be found at which the species was unrepresented by at least two or three unfortunate examples. I am ready to acknowledge that I have myself been a sinner in trying to keep these beautiful

birds in captivity. I have tried old birds, young birds, and even hand-reared birds, but I have never been able to get them through the moult, although I have had several that seemed outwardly quite reconciled to cage life, and that would feed from the hand. When one considers how a Swallow sustains itself in a state of Nature, namely, by taking innumerable infinitesimal insects on the wing, at the cost of incessant exercise, and contrasts this with the way it must, perforce, be fed in a cage by having a portion of "food" (mostly a stodgy mixture of indigestible rubbish, or, at the best, only a few coarse insects and mealworms) dumped down before it daily (perchance, if its owner is specially attentive, twice daily) to eat or leave as it may, it is very easy to understand the utter impossibility of keeping these birds in cages.

If we admit not only the difficulty, but practically the impossibility of keeping English Kingfishers and Swallows in cages it will be all the more curious to note that there are Australian representatives of very similar birds which are quite easy to keep in health and beauty in a cage. I refer to the Sacred Kingfisher and the Wood-Swallows, or, more properly, the Wood-Swallow Shrikes. True, neither of these belongs respectively to the same genus as the English bird, the Sacred Kingfisher being *Halcyon sancta*, while the English Kingfisher is of course *Alcedo ispida*, and the Wood-Swallow Shrikes are *Artami* of various kinds, our Swallow being of the *Hirundo* family. After the very interesting article upon the Sacred Kingfisher by Mr. Seth-Smith in the April number of the "Avicultural Magazine" I feel that I cannot add anything in respect of these birds, especially as I have not been so fortunate with my pair as Mr. Seth-Smith has been with his. The Wood-Swallow Shrikes, however, have so many characteristics of our own Summer visitor *Hirundo rustica* that I may be excused for having made mention of the latter as an introduction to the following lines upon my experience of the former as cage birds.

Unless the Zoological Society has acquired specimens since its list published in 1896 the *Artamus* genus has only been represented by *A. superciliosus*, the White-eyebrowed Wood Swallow Shrike. A pair of these appear to have been presented to the Society in 1866 by the Acclimatization Society of Melbourne. A pair is scheduled as "Bred in the Gardens, 1870," evidently from the 1866 birds, and a fifth specimen was "Purchased 1875."

Besides *Artamus superciliosus*, several species of the

genus have been described from time to time, notably the Dusky Wood Swallow (*A. sordidus*), The Masked Wood Swallow (*A. personatus*), the Grey-breasted Wood Swallow (*A. cinereus*), the largest of the genus, the Little Wood-Swallow (*A. minor*) a miniature copy of *A. cinereus*, and the White-rumped Wood-Swallow (*A. leucopygialis*).

About two years ago a friend of mine, a member of the Avicultural Society, brought with him from Australia two pairs of the Dusky Wood-Swallow Shrike, one pair being old birds, and the other the young taken with the old birds in the nest. I bought the parent birds, but declined their offspring, as these appeared to have suffered considerably from the fact that my friend's stock of mealworms had given out at Port Said. I believe that this identical pair of young birds are now doing well with our esteemed member, Mr. Fillmer. I have still my old pair, and also three other pairs brought over by the same importer on his next journey (some nine months ago), so that I have what I presume is the unique experience of possessing no less than eight of these birds and all well. They have been kept all together in a large open cage with wire top as well as sides, and they spend quite a considerable portion of their time hanging head downwards from the top of the cage. They roost as closely as possible together, always head downwards. When I had my first pair I soon noticed that if anything was accidentally left on the top of their cage they invariably roosted directly underneath it, so their cage now is always provided with a piece of flannel which is evidently appreciated. Some idea of the way these birds nestle together at night may be gathered when I state that, when I had only one pair, a *Zosterops* that was kept in the cage with them invariably slept actually between the two inverted bodies of the Wood-Swallows.

One authority (Gilbert) says that they hang from the under branches of trees like bees swarming until the cluster approaches sometimes the size of a bushel basket. Mr. Gould, however, writes that they roost under the branches in groups of eight or ten birds, and that from time to time an individual member will leave its position and dart away in pursuit of insects, returning to its place soon after. The latter appears to be more likely, as I have never seen my birds hang the one from the other.

Their food is just the ordinary "insectivorous" food such as supplied to my other insectivorous birds, and although their water is given them in an open porcelain dish, they never bathe.

Dr. Brehm gives a long chapter purporting to be upon *A. sordidus*, but the description would appear to refer to a different bird to mine, as it mentions the bird as being "reddish grey on the body and with dark bluish-black wings and tail," and states that "the hen is smaller than the cock, and presents a spotted appearance on the back, the feathers on that part having a dirty white streak upon their shafts." The colour of the "surface of the body," whatever part of the bird that may be, is given as being "a mixture of white and brown." It will be noticed that in one line the bird is described as being "reddish grey on the body" and in another the "surface of the body" is stated to be "a mixture of white and brown." I suppose a mixture of white and brown would produce something of a "reddish grey," but the description does not fit my birds, which are of an almost uniform slate colour, darkening to nearly black on the wings and tail. The first primary is entirely dark, but the outer web of the second, third, and fourth is white, as also are the tips of the tail feathers, except the two in the centre. I absolutely fail to distinguish between the sexes either in the matter of size or colour, and when I have exhibited a "pair," which has been frequently, I have simply caught out two at random, and sent them to a show with no other preparation than perhaps washing their primaries and tail feathers with a shaving brush.

Their call is an exact imitation of the distant cry of an Oyster-catcher on a beach, and their song, though very quiet, is quite a pretty attempt at minstrelsy.

Since the foregoing article was written, two pairs each of *A. superciliosus* and *A. personatus* have been imported. I have procured one pair of each, and the others have gone to the Zoological Gardens. I have of course not had them long enough to write much of them as cage birds, but I have thought that a short description of them might not be without interest.

Unlike the Dusky Wood Swallow, the sexes of the White-eyebrowed and of the Masked are easily distinguished. The cock of the Masked Wood-Swallow is grey above and greyish-white underneath, the throat and face to just above the eyes being covered with a dense black mask. The grey becomes darker on the wings and tail, but there is no other black on the bird than the well-defined black mask which gives it its name. The wing feathers, except the first two primaries are very lightly edged at their tips with light grey, which appears as a fine lacing when the bird is at rest. The tail-feathers are tipped with the same grey.

The hen is slightly smaller, and her markings are a subdued copy of those of the cock; the "mask" is only just visible as a darker patch of grey than her back plumage; the breast also is not of so pure a grey as that of the cock.

The White-eyebrowed is a little darker in body plumage than the Masked, and the cock bird has just such a suggestion of a mask as has the hen of the Masked Wood-Swallow. It has the same grey edging to the tips of the wing feathers, but no grey tips to the tail. Each wing-covert is marked with a tiny triangular patch of light grey, and these, when the wings are closed make quite a pretty "spangling." The breast is of a ruddy brown. A well defined white superciliary streak, which is the only white in the bird's plumage, gives it its name.

As in the case of the Masked Wood-Swallow the hen is a subdued copy of her mate. The white eyebrow is only just a suggestion, and the spangling on the wings is missing.

The same Shrike-like beak, slate color for half its length shading to black at the tip, and the same strong slate-colored legs and feet are common to all three varieties.

A most remarkable difference in habit is that while the Dusky Wood-Swallows spend all night and a considerable portion of the day hanging, as described, from the top of their cage, the other two varieties show no trace of such a tendency, but use their perches for roosting as well as in the day-time.

ZOO NOTES.

By J. LEWIS BONHOTE.

VII.—MARCH.

Mar.	7	4	Cockatiels— <i>Calopsittacus nova hollandia</i>	Australia.	Parrot House.
	13	1	Black-faced Ibis— <i>Theristicus caudatus</i>	S. America.	Eastern Aviary.
		2	Grey Struthideas— <i>Struthidea cinerea</i>	Australia.	Parrot House.
	14	1	Silver Pheasant— <i>Euplocamus nycthemerus</i>	China.	Pheasantry.
	17	1	Greater Black-backed Gull— <i>Larus marinus</i>	Europe.	Gull Ponds.
	23	1	Great Bustard— <i>Otis tarda</i>	Europe.	Eastern Aviary.
		1	Snowy Owl— <i>Nyctea scandiaca</i>	N. Europe.	Owls' Cages.
		1	Pin-tailed Sandgrouse— <i>Pterocles alchata</i>		Western Aviary.
		1	Slender-billed Gull— <i>Larus gelastes</i>	S. Europe.	Eastern Aviary.

May 23	2	Martinican Doves— <i>Zenaida aurita</i>	West Indies.	Western Aviary.
„ 26	1	Secretary Vulture— <i>Serpentarius reptiliivorus</i>	S. Africa.	Eastern Aviary.
	1	Spanish Blue Magpie— <i>Cyanopoliis cooki</i>	Spain.	Western Aviary.
„ 30	1	Greater Black-backed Gull— <i>Larus marinus</i>	Europe.	Gull Ponds.

The chief feature of interest among this month's arrivals is the pair of Struthideas, which have been, I hope only as a temporary measure, lodged in the Parrot House. The Struthidea is a dull-coloured grey bird, allied to the Jays, inhabiting Southern and Eastern Australia. It has a short and obtuse beak, which is well adapted for obtaining the seeds from a tree in its native country, upon which it feeds to a large extent. It is not often seen as a cage-bird, and has, I should imagine, but little to recommend it; it is, however, well worth going to see even in its present quarters.

From the last-named species to the Piping Crows is but a short step, in classification, though a long one in the gardens! The Crows are now well worth a visit, and the collection includes many species, most of them in grand condition. A pair of Piping Crows, which had evidently paired up, occupied an aviary to themselves, and their antics, on the occasion of my visit, were very amusing, and I trust the result may be equally interesting.

The Gulls have already begun to nest, and those who, like myself, so enjoy hearing from twenty to thirty of these birds utter their weird cry all at once, have abundant opportunities for giving themselves that pleasure.

It is, as yet, too early for much nesting of any interest to be taking place in the Western Aviary, but the birds are all looking their best, and several of the Doves were busily engaged in matrimonial duties.

There is a very fine collection of British Geese in the Gardens at the present time, but owing to the bad arrangement, or rather want of arrangement, it takes a careful search to find out the various species: they are all to be seen between the Gull Ponds and the Fox Cages, and the differences between the Pink-footed, Bean and Grey-lag, or the Greater and Lesser White-fronted, may be comfortably and profitably studied.

In the Fish House the chief item of interest for this month was going on, namely, the mating of a pair of Knots.

Although this small wader is very common on our coasts, and is frequently kept in captivity, where it thrives remarkably well, it has never been known to breed when in captivity, nor have its eggs ever been brought home from its breeding haunts in the North of Arctic America. Young birds just hatched have been obtained, and, on one occasion, a nest of eggs, but the latter were lost in a shipwreck before reaching England. It would thus be most interesting if these birds which have paired could be induced to lay, but personally I have not much hope on the subject as the place they are in, though not unsuitable in itself, is far too crowded with other Waders, Puffins, Terns, etc. The Knot, which is grey in winter, follows the example of many of its kind and gets red in summer, but this particular pair were by no means in full plumage; my attention was first drawn to them by their *note*, which was quite different from the usual winter call, but which, from the short time I watched them, I cannot attempt to describe.

NOTE FROM THE EDITOR.

I have received from a member of the Society a prospectus of the terms upon which cage-birds can be insured against fire, burglary, and other risks, by a member of Lloyds. Aviaries, too, can be insured against fire. Copies of this prospectus will be sent to members of the Avicultural Society on receipt of a stamped addressed envelope, by

H. W. MATHIAS,

Doone Cottage,

Thames Ditton, Surrey.

I have lately heard from Mr. CAMPBELL, of Melbourne, Australia, that, though the subscription list to his forthcoming work on "Nests and Eggs of Australian Birds" has been formally closed, members of the Avicultural Society will be allowed to order copies at the original cost, *i.e.*, if their names are registered before the book is published. Communications are to be addressed to

Mr. PETHERICK,

85, Hopton Road, Streatham,

London, S.W.

O. E. C.

CORRESPONDENCE.

"TREATMENT OF A BIRD IN SICKNESS."

SIR,—In the February number, under the reply to "Treatment of a Bird in Sickiness," I quite agree with the last paragraph.

It is just twenty-one years ago since I bought some Budgerigars from the late Anton H. Jamrach. Not knowing anything of the treatment of foreign birds, I asked him what could be done if the birds became ill. He replied "Nothing." I must say that his advice was correct, for when first

commencing to keep birds, I tried various so-called remedies on newly-imported ones, when they became "puffy," but it was labour in vain.

W. T. CATLEUGH.

A STRANGE BREEDING-PLACE FOR MEALWORMS.

SIR,—When my bird-room recently underwent a "spring cleaning," I turned out several nest-boxes which had been hanging in one of the aviaries for a year or two (certainly not more than two years). They were the ordinary cigar-box nests, and were hanging about nine feet from the floor. They were, of course, stuffed full of nesting material, but I was surprised to notice among this a very considerable number of fine mealworms. There were so many that it was well worth while to go carefully through the rubbish and pick them out, and by doing so I secured about 200. The birds in this aviary were not supplied with mealworms, and I can only suppose that the beetles flew up to the nests and laid their eggs there.

HORATIO R. FILLMER.

THE SHAMA.

SIR,—Agreeing entirely with Mr. Phillipps in his estimate of the Shâma's merits, I dissent as to one or two points of treatment.

My bird has come gradually to decline mealworms, apparently finding the tough skin a hindrance. He pinches and mumbles the worm (or used to) sipping up the fluid so out-squeezed. The pupa state is rather more acceptable, and when the beetle emerges it is taken readily; but cockroaches are the one thing needful, my bird swallowed 40 fairly big ones in a day. No doubt living insects would be most enjoyable, but in our establishment scalding is practised in deference to worldly prejudice.

I have heard or read that the Shâma, in his own country, feeds or is fed on grasshoppers, and our *Blatta* belongs to a nearly allied family of insects. Failing insect food entirely, shreds of meat, preferably raw and lean, are acceptable; ants' pupæ, wet or dry, were seldom partaken of.

Going back to mealworms—Does everybody know that their culture depends materially on warmth? Mine are in a tin box very near to a stove, and progress is evidenced by the abundant exuvixæ.

Also I supply the Shâma with the flower tufts of the small wayside grass (*Poa annuæ*) which blooms for eight or nine months in the year (bits of parsley might do), these are thrown up in flask-shaped pellets, including the external parts of the cockroach rubbed up into small bits.

My two previous birds were accommodated with a sort of cubicle in a dark corner, as Mr. Phillipps suggests. My present tenant prefers a perch in the full light.

T. TURNER.

TREATMENT OF PENNANT'S PARRAKEET.

SIR,—I shall be very grateful if any member of your Council will be so good as to give me a few hints as to the feeding and general management of Pennant's Parakeet (*Platycercus pennantii*). I have recently bought a pair of them, cock and hen, and so far (that is for the last three weeks) they seem to be doing well enough on a diet of hemp, canary, and sunflower seed. They seem to prefer the last. This seed, however, which is so freely given to Parrots in Rome, I find no mention of in Mr. Fillmer's useful

article on "The Food of Birds in Captivity." I hope it may not prove ultimately injurious to them. They seem also greatly to relish linseed. I should be glad to hear what green stuff they should be given, and whether they have been known to breed in captivity.

I may say that, though very wild when first I had them, the hen bird will now dance on my finger when I put it in the cage, and both birds will take food, when hungry, from the hand.

With anticipated thanks for any information which your Council may kindly furnish,

THOS. P. BULLIVANT.

P.S.—At present my birds have shown none of the unamiable characteristics attributed to their species by Dr. Greene in "Feathered Friends," page 183. Can you tell me what is the standard authority on Parrots and Parrakeets?

The following reply was sent to Dr. Bullivant :

I should give the Pennants hemp, canary, millet, and oats in equal parts.

Sunflower seed and linseed are said by Bechstein to be fattening, and I should give those as a treat twice a week. Let them have groundsel, chickweed, plantain, and watercress for green food.

I think Russ' is still the best book, if you are a German scholar; but I confess I pick every one's brains who can tell me anything about Parrots, and am more and more impress'd with the smallness of our knowledge about them.

They have been bred in captivity, but I have never heard of their being bred in a cage.

F. G. DUTTON.

NESTING BOXES.

SIR,—Some years ago I invested in a foreign-made Tit-box, but could not induce the Tits to use it. My next attempt in this direction was a hollow tree, some 15ft. or 20ft. high, which I put up for Owls. This has likewise proved a failure owing, I believe, to its exposed position.

A hollow log, placed in a large ash tree, has proved more successful. It was at first tenanted by Stock Doves, but last year a pair of Barn Owls reared a brood, or at any rate a young one. This I saw in the daylight, and it was of a very dark colour. There is a similar example of melanism in the Booth Museum at Brighton, and another was advertised in the *Feathered World* last year.

My other nesting-places consist of boxes of all sizes and shapes: hollow logs and 18-gallon beer casks. The latter are appreciated by Stock Doves, and in 1898 a pair of Barn Owls occupied one for a few months. At the end of May one of them flew in at about four in the afternoon; I watched them out that evening, and they never returned. Had the vagrant been searching for new quarters?

In making my boxes, the size of the entrance has always been a matter of doubt (a). It is to be regretted that Mr. Martin did not give the

(a). The name and address of the makers, who doubtless would forward a copy of their illustrated list, is Gebrüder Hermann and Otto Scheid, Büren in Westfalen.—O. E. C.

dimensions from the German list. The name of the makers might also interest some of the members: it is desirable to know where such goods can be obtained. An Owl box at 2s. 2d. is cheaper than a "stinker" beer cask at 2s. 6d., and requires no adapting to its purpose; neither is a beer cask a handy thing to get up into a tree and to fix when hoisted up.

CHAS. LOUIS HETT.

THE PROPOSAL TO EXTEND THE SCOPE OF THE MAGAZINE.

SIR,—I cordially agree with Dr. Butler *re* Mr. Fillmer's proposal about the *Avicultural Magazine*, and I earnestly hope most, if not all, the other members will give their views on the subject, which would seem by far the fairest way of settling matters. I feel sure many of us would resign our membership if we are likely to have such an alteration as Mr. Fillmer suggests. I have always been a great admirer of our useful little Magazine, and I would sooner double the yearly subscription than incorporate it with matters outside the birdy world.

ELLEN G. BARNES.

SIR,—At first sight, Mr. Fillmer's proposal to extend the scope of the Magazine is attractive; but the more the matter is considered and pondered over the more serious do the objections to the proposal appear.

As regards Mammals, Reptiles, and Fishes, not only are these sufficiently well looked after by *The Field*, *Land and Water*, *The Bazaar*, etc., but they may be said to be specially looked after and waited upon by *The Zoologist*; and not many of these creatures lend themselves readily to be discussed from the point of view of the ordinary keeper of animals. Besides these are not birds; and not the least objection to the proposal is that it would necessitate a change of name,—that is, the abolition of the Avicultural Society and of the *Avicultural Magazine*.

Mr. Fillmer states that "Canaries could now never occupy anything more than a subordinate position among the objects to which the Society should devote itself." The word "should" is well chosen,—but how about "would!" Whether you attend a Bird Show, or glance at a "Fancy" paper (how I loathe that word!), letter-press or advertisements, you will find that it is the British and foreign birds that occupy the subordinate position,—and, should the Canary be admitted, it "would" certainly result, sooner or later, in the British and foreign birds occupying the subordinate position in the *Avicultural* as elsewhere. Mr. Fillmer urges as an argument, "Keepers of British and foreign birds have no exclusive right to the name of aviculturists," and "On the score of humanity, the culture of Canaries is to be preferred to that of nearly all other species, as it does not involve the capture of wild birds." It seems to me that these arguments apply equally well to Domesticated Poultry generally, including Pigeons, Ducks, Geese, and Turkeys. If once the flood-gates were opened, it would be difficult to withstand the inrush of the flood, and the consequent swamping of the British and foreign birds.

When the *Avicultural* was established in 1894, it helped to supply a want; and more and more it has done this, and more and more it will continue to do this—if we are only true to ourselves.

REGINALD PHILLIPPS.

AVICULTURAL NOTES.

SIR,—I saw in the correspondence pages of a recent number of the Avicultural Magazine, your request that members should record from time to time any notable additions to their collections.

In response, I write to say that during the past week I have acquired, besides the Wood-Swallows of which I have already written, one Fantail Flycatcher, or Wagtail Fantail, or Black and White Fantail (*Sauloprocto motacilloides*), and one Yellow-breasted Australian Robin (*Eopsaltria Australis*).

With regard to the first-named bird, either of the popular names quoted would appear to be appropriate. It has a fan-shaped tail, uses it like a Wagtail, is certainly a fly-catcher, and is entirely black and white in plumage. All the upper portion of the body, and the wings and tail, are jet black, and the under half of the bird is pure white. A pair of white eyebrows furnish the only white in the upper portion of the bird's plumage, and the only black in the under section of the bird is that of the legs and feet. The primary and secondary wing-feathers when the wing is extended are really a pale brown, but the wing when closed appears of the same jet black as the rest of the upper half of the plumage. In size it approaches the Shâma or the Dhyal Bird, but is somewhat more slender in body. In quite a small cage it can keep on the wing when it chooses without touching the perches. I think the bird has never before been imported. The gentleman who brought it tried one on his last homeward voyage, but it died on the journey. My present specimen is in perfect health and plumage, and is an example of what can be done with intelligent attention on a journey of some twelve thousand miles through every gradation of temperature and weather.

The Yellow-breasted Robin is just a little larger than our Redbreast. Like the *Sauloprocto* it has many of the characteristics of the fly-catchers, and the colouring is similarly divided between the upper and lower portions of the bird. The entire upper half of the head and body, together with the wings and tail are of a bluish grey, and the under portion of the body is of the same colour as that of our Yellow Wagtail. Both birds are sufficiently tame to accept a mealworm from the fingers, but I have of course not had them sufficiently long to say anything of them as cage birds. Before this letter can be in print the birds, together with the Wood-Swallows and many of my best foreign birds, will be in the possession of Mr. Glasscoe who has helped me in my determination to "clear out," and it is to be hoped that this gentleman may in the future give the members of the Avicultural Society the benefit of his experience with these and other foreign cage birds. If he does not do so it will not be for lack of material, as his collection I know already includes more than two hundred specimens.

HENRY J. FULLJAMES.

FORSTEN'S LORIKEETS.

SIR,—I believe some of our members have had past experience with the above-named birds. I have recently received a very fine pair, and, with your permission, should like a little information on the following points :

First, what is the difference in the sexes? Have they ever bred in

England? Would an outdoor garden-aviary be suitable for them during the Summer? (I could give them the choice of several from 30ft. down to roft.) To me they appear birds that would be easily tamed, they have such a jaunty air, not at all shy. Are they vicious with small birds other than Parrakeets? and lastly, are they destructive to growing bushes, trees, &c.

F. W. OATES.

The following reply has been sent to Mr. Oates :

I believe that there is no difference in the plumage of the sexes in Forsten's Lorikeet, but the cock can generally be distinguished by his bolder appearance, and by a difference in the shape of the head. I am not aware of their ever having bred in England. They should do well in an outdoor aviary during the Summer. All Lorikeets are more or less spiteful to other birds. They are not nearly so destructive as the seed-eating Parrakeets, but unless the aviary were very large they would probably succeed in killing all trees and shrubs in it.

HORATIO R. FILLMER.



SPOTTED PANTHER BIRD.
Pardalotus punctatus.

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THE SPOTTED PANTHER-BIRD.

Pardalotus punctatus.

By A. G. BUTLER, Ph.D., etc.

It will be remembered that last year our member, Mr. Norman B. Roberts, wrote to ask whether this species had been imported and kept in confinement in this country, and I replied that Mr. Abrahams had imported it in 1882, had sent a pair to Dr. Russ, but unhappily the birds were dead when they reached him.

With his letter Mr. Roberts forwarded such a characteristic coloured illustration that it seemed a pity not to reproduce it in the Magazine, and, after a consultation of our Executive Committee, it was decided that it should form one of the plates for this year's volume.

The *Pardalotes* or Panther-birds are small showily coloured active little creatures having very Tit-like habits: they build covered nests in holes, either in trees or banks, lay white eggs, and feed upon seeds, buds and insects: there should therefore not be the least difficulty in keeping these birds in health either in cage or aviary.

Gould says of the Spotted Panther-bird—"No species of the genus *Pardalotus* is more widely and generally distributed than the Spotted Diamond-bird; for it inhabits the whole of the southern parts of the Australian continent from the western to the eastern extremities of the country, and is very common in Tasmania. It is incessantly engaged in searching for insects among the foliage, both of trees of the highest growth and of the lowest shrubs; it frequents gardens and enclosures as well as the open forest; and is exceedingly active in its actions, clinging and moving about in every variety of position both above and beneath the leaves with equal facility.

With regard to the nidification of this species, it is a singular circumstance that, in the choice of situation for the

reception of its nest, it differs from every other known member of the genus ; for while they always nidify in the holes of the trees, this species descends to the ground, and availing itself of any little shelving bank, excavates a hole just large enough to admit of the passage of its body, in a nearly horizontal direction to the depth of two or three feet, at the end of which a chamber is formed in which the nest is deposited. The nest itself is a neat and beautifully built structure, formed of strips of the inner bark of the *Eucalypti*, and lined with finer strips of the same or similar materials ; it is of a spherical contour, about four inches in diameter, with a small hole in the side for an entrance. The chamber is generally somewhat higher than the mouth of the hole, by which means the risk of its being inundated upon the occurrence of rain is obviated. I have been fortunate enough to discover many of the nests of this species, but they are most difficult to detect, and are only to be found by watching for the egress or ingress of the parent birds from or into 'its' (their?) hole or entrance, which is frequently formed in a part of the bank overhung with herbage, or beneath the overhanging roots of a tree. How so neat a structure as is the nest of the Spotted Diamond-bird should be constructed at the end of a hole where no light can possibly enter is beyond our comprehension. The eggs are four or five in number, rather round in form, of a beautifully polished fleshy white, seven and a half lines long by six and a half lines broad. The song of the Spotted Diamond-bird is a rather harsh piping note of two syllables often repeated."

Mr. North writes—"The Spotted Pardalote or Diamond-bird is common in all parts of New South Wales, and plentifully dispersed over the whole of the eastern and southern portions of the continent." Dr. Ramsay writes as follows—"Like the Black-headed species (*P. melanocephalus*), it digs a small narrow burrow in the side of a bank or mound of earth, the end of this it enlarges into a spherical chamber of about four inches in diameter, which it lines all round but more thickly at the bottom with fine strips of stringy bark,(a) or, in the absence of this material with grass. When the earth is carefully removed and the nest taken out, it is found to be a very loose hollow ball, slightly interwoven and having a small round entrance in the side, opposite the opening of the burrow. Sometimes a small hole in a log of wood is chosen, a crevice in an old wall, a niche under a shelving rock, or the banks of water-holes or creeks, all

(a) The fibrous bark of the *Eucalyptus capitella*, *E. macrorrhyncha*, and other allied species.

alike are resorted to; still I have never known the Spotted Pardalote to breed in the hollow branch of a tree, or take possession of the nests of a Fairy Martin (*Lagenoplastes ariel*) as *P. affinis* and *P. striatus* are wont to do.

The eggs of *Pardalotus punctatus* are four in number, of a beautiful pearly white after being emptied, but pinkish before, rather roundish, being in length 0·6 inch by 0·5 inch in breadth. The breeding season, which sometimes commences as early as July, lasts until the end of December, during which time three broods are often raised."

It will be seen from the foregoing accounts how closely this and the other species of Panther-birds approach our European Titmice in their actions, food, and nidification, for although our Tits frequently only line the bottom of a hole selected as a nesting-site, I have sometimes found their nests as perfectly formed as those of a Wren: it is true that they usually, though not invariably, lay spotted eggs; but this is a detail of little real importance.

It is sincerely to be hoped that those who are in communication with Australian dealers will exert themselves in trying to induce them to send over consignments of these extremely beautiful little birds. What man has done, man may do; and as the species has once been imported there is not the least reason why the experiment should not be repeated.

With Mr. Roberts' characteristic drawing before us it is, in my opinion, not at all necessary to give a description of this bird. The size may be gathered from the fact that Latham believed it to be a Mannikin.

NOTES ON THE SPOTTED PANTHER BIRD.

Pardalotus punctatus.

By NORMAN B. ROBERTS.

It is quite impossible to describe the overwhelming delight and keen enjoyment of a true lover of birds, upon waking up one morning in a country new to him, where each bird he sees is different from any he has previously met with. Never shall I forget the morning of my first day in the Australian bush. I had travelled late into the night, and snatched as much sleep, in an up-country shanty, as my too numerous bed-fellows would permit. I, however, needed no disturbing influence to make me leave my bed. There were

unknown bird notes floating through the window, and the delicious invigorating early-morning air of the bush, laden with the scent of gum trees, was filling my every nerve with an excess of life. It was no hardship, therefore, to turn out into a new world overflowing with wonders and delights.

This ornithological Paradise is on the banks of the Murray, in New South Wales. During this, my first, day 'up country,' I noted no less than 68 species, many of which I did not at the time recognise, and, with the exception of a few Parrots and Honey-eaters in the vicinity of Melbourne, not one of which had I ever seen before in a state of nature.

One of the first of the small birds to attract my attention was the Spotted Pardalote or Panther Bird.

These delightful little creatures appear like animated jewels, with their shining white spots on a black ground, relieved by gold and crimson. I found them generally in small flocks of about half-a-dozen, no doubt family parties. They are not at all shy, and it is therefore possible to watch them closely. They are always in motion, and one could not wish for a prettier sight than four or five of these lovely little birds, swinging head downwards, or performing other acrobatic feats, as they forage among the blossoms of a gum tree for the small insects attracted thither by the honey they contain in such abundance. I have also seen them on the ground, feeding upon grass and other seeds.

I had no opportunity for examining their nests or for going into their life-history, but the sexes are alike, and all the specimens I obtained were marked in a similar manner with varying degrees of intensity. It is possible that the nest feathers may be different from those of the adult bird, but if so, they undergo the change very soon after the youngsters are able to shift for themselves.

The allied form, *P. affinis*, is a rarer and not quite so attractive a bird as the subject of the plate. The back is olive without any markings, there are no spots, but some of the secondaries are margined, and the feathers of the crown of the head are streaked with white, there is very little yellow on the throat, and the only bright spot of colour is the bastard wing, which is brilliant scarlet.

I think it would be possible to keep these birds healthy in captivity, and I wonder that more attempts have not been made to bring them to this country. They are not uncommon, and inhabit the same districts as the Diamond Sparrow, Zebra Finch,

Sydney Waxbill, and other birds which are commonly imported, so that one would think that if the demand were made, the supply would be forthcoming.

A NATURALIST'S NOTES IN ECUADOR.

By WALTER GOODFELLOW.

(Continued from page 128).

Since my last article appeared many members of the Avicultural Society have been kind enough to write and tell me how much they were interested in it. Some express a hope that it is not all I have to say on Parrots, and regret that I said little or nothing about the Amazons. We certainly in our travels came across thousands of these birds and a great many species of them, but I must confess to never having been particularly interested in them, which perhaps accounts for my giving them but a passing notice. Although I have at one time or another kept hundreds of Parrots and Parrakeets, I have never possessed an Amazon of any kind. I have no doubt that many of them make charming pets, and are, perhaps, far more interesting than many birds for which I have a greater preference. In the present article I intend to write about some of the Toucans of Ecuador; but to those members who are more interested in Parrots I may say that when this series of articles are finished, I will try at same future date to write more about Parrots as we found them in their own country.

I think I must always have been fond of Toucans, for among my earliest recollections is a case of stuffed Toucans we had in our nursery at home, and I fear that when we reached boy's destructive age that that case was demolished by means otherwise than fair, for the stuffed birds eventually became our playthings. Later on in life I became the owner of a charming Sulphur-breasted Toucan, which only increased my love for these birds, so when I went out to South America, for the first time two years ago, and saw them in their native forests, my joy knew no bounds. How well I remember the very first ones we saw! It was in Colombia, in that beautiful but unhealthy belt of country between the Pacific and the first range of the Andes. We were travelling on to Cali, and had just gone through our first night of what we *then* thought roughing it. We should, indeed, have been fortunate subsequently always to have found a sleeping-place as good as this, or even half as good. We had wasted a lot of time during that first day's ride gazing at birds

and nature around us. So we were left behind alone and all our baggage and camp beds far on ahead of us ; the consequence was that when night overtook us we were forced to stop at a miserable shanty, and lay on a bare plank for a bed and used our riding boots as pillows. Our supper consisted of a very small tin of sardines which was the only food we chanced to have with us. Not being then inured to such discomforts, our aching bones refused to allow of sleep, so we were up and had saddled our horses when it was scarcely daylight, and started off on empty stomachs. As the sun rose, multitudes of beautiful birds came forth from every tree and bush and were shaking the dew from their feathers and drying themselves in the sunshine. Brilliant green Kingfishers sat motionless watching the stream below ; Tyrants darted out into the air to seize some insect, always returning again to the same twig ; Hangnests were busily engaged constructing their long purse-shaped nests, and flocks of little Blue-winged Love Birds flew screaming from tree to tree ; Humming birds darted across the path or hovered over the bushes sipping the honey from the flowers ; little pale Grey Doves ran along the paths, and then six large birds flew, one behind the other, from the top of a high tree on the opposite side of the narrow valley, and flew into another tree just over our heads. Yes ! they were Toucans, there was no mistaking them with their long bills pointing downwards. At once hunger and discomfort were forgotten and I was glad that circumstances had caused us to start so early on our journey that morning ; but what a different flight they had to what I had imagined ! In a cage one always thinks them somewhat clumsy, but there was no clumsiness in that graceful flight across the valley, and at the same time it was unlike any other bird's. How I feasted my eyes on them as they gamboled among the branches of the great tree above us. I say gamboled, for that is what they were doing, chasing each other from branch to branch and snapping their beaks and making a peculiar rattling noise in their throats. One would throw a fruit into the air and before it could catch it again, another would seize it without any intention of swallowing it, but pass it on like boys would a ball. I have never seen any other birds play together like a number of Toucans will, and on many occasions since, I have watched them doing the same thing.

These birds are also high fliers, and, although they never take a long flight at one time, they generally pass along well above the tops of the forest trees. They rise in the air, and came down to where they intend settling with a long swoop.

The wings look particularly short when flying, and the bills conspicuous. They go in small flocks straggling one behind the other, the older birds (judging by the length of bill) taking the lead. As a rule, they are not early birds at getting up in the mornings, and are late to retire of an evening. I have often seen them about when it has been nearly dark. During the hot hours of the day they retire to the shady depths of the forest, and are never to be seen. Those of the genus *Rhamphastus* are dwellers in the highest trees; While *Pteroglossus* may be found in more open spaces, and often in banana plantations round human habitations. On one occasion I even saw a *Pteroglossus* on the ground eating a fallen plantain, but a *Rhamphastus* never. Then there are the little Green Toucans, *Aulacorhamphus*, which may be said to live among the undergrowth of the forests, and are never seen in trees of any great height, for they feed on the berries of bushes and low trees. These birds seem to be solitary, for I never saw even a pair of them together. Unless you happen to see them settle, it is most difficult to detect them in the forests, for, unlike other Toucans, they will sit motionless for a long time. Often I have had them pointed out within seven or eight yards of me, and could not detect them sometimes before my guide had lost all patience.

One has always read in books that Toucans eat the eggs and young of other birds. Although it may be true, I never personally saw anything to confirm this. On the contrary, there was a tree just by our hut, at Nanegal, to which Toucans constantly resorted, and the small birds never seemed in the least alarmed at their presence among them. On the Napo, I once saw a flock of Toucans in a tree from every branch of which were hanging the nests of the *Cassicus persicus*; the latter birds passed to and from their nests without taking any apparent notice of the Toucans; and I never saw a nest of any of the *Icteridæ* but which was far too long for a Toucan's bill to reach the eggs. I am aware that in captivity these birds, as a rule, evince a decided preference for meat, and I have known them to kill and eat a small bird, but it might be an unnatural taste caused by confinement. My old Sulphur-breasted Toucan was never a sinner in this way. His aviary was only divided off from the aviary of the smaller fruit-eating birds by wire netting; they were constantly clinging to the wire, and, had he been so minded, nothing would have been easier than for him to have pulled them through, but far from doing that, he used to pick out all the choicest morsels from his food-pan, and feed them through the meshes. I am certain that one Bulbul relied solely on him

for all the food it ate, and I never saw it feed from the pan itself. Often still smaller birds got into the aviary with the Toucan, and whenever they did so he would offer them food. On the other side of him were the Parrakeets, and he was just as attentive to them, especially so to a female Bulla-bulla.

I was often much surprised at the poor, uninviting-looking berries and fruits that, not only Toucans but almost all the fruit-eating birds in tropical S. America, lived on. It seemed a wonder that they could get any nourishment out of such dry tasteless-looking food, as most of it was. It was the sort of food you would expect birds at home to be driven to eat, when all other things had failed, during a severe winter. There were few or none of those luscious fruits one imagines to be so abundant in tropical forests. The forest trees make a grand show with their beautiful and exquisitely-scented flowers, and lead one to expect equally grand things in the way of fruit ; but like many other things in this world, the anticipation exceeds the reality.

Toucans, like Macaws, choose the highest sites they can obtain for their nests, indeed, they take possession of the latter birds'. Woodpeckers are the first constructors of them ; then follow the Parrots, who enlarge them to suit their requirements ; after that the Toucans dispute with the Trogons and other birds for the possession of them ; in fact, one would imagine that there must be great rivalry for these nests among non-boring birds who build in holes, as the Toucans, Trogons, Umbrella Birds, and many others do.

Although Toucans are very numerous on the Western side of Ecuador, there are not nearly so many species there as on the Eastern side, if only counting those species which are found down to the foot of the Andes ; for if we counted those also which are found down the rivers to where they join the Amazon, but in territory claimed by Ecuador, they would include most of the Brazilian species also.

The largest but not the commonest of those from the Western side, is the *Rhamphastus tocard*, a bird with a rich sulphur-coloured breast, edged with cream and red where it joins the black of the underparts. The upper tail coverts are white, and the under ones red. The bill is serrated, and the lower mandible wholly black, as also is the lower half of the upper one, the black being widest at the base, the other part of it greenish yellow with a little blue down the centre. The bare skin around the eyes is a very fine shade of yellowish green, and the eyes are pale blue. These birds seem to live in the depths of the

forests, but sometimes, towards evening, they might be met with in the highest trees on the edges of the clearings. We procured specimens from Santo Domingo, and other places about the same level. I once had a remarkably fine specimen brought to me, which had had its bill and tongue shot off (I presume) to within a short distance of the base, otherwise the bird was in perfect condition ; but it was a marvel how it had managed to feed. The bill was irregularly broken away, and this had evidently been done a long time previously. The Ecuadorians call all Toucans " Predicadores," preachers, or " Deos te de"—God gives it thee; and throughout the whole country these are the only names they know them by. The first name they receive from the habit they are said to have of bowing and nodding about, which, to the Ecuadorians, conveys the idea of a preacher; but to me they never suggested that. The latter still more extraordinary name is, perhaps, slightly more appropriate, for in jerking the food down their throats, they certainly do, with the aid of a little imagination, make the sign of the Cross by the movements of the head, and " Dios te de" the natives say as they cross themselves before meals.

Far more numerous than the preceding species, are the *P. erythropygia*. These birds we shot constantly from our hut at Santo Domingo. They vary much in the intensity of their colours, and in the size of their bills, in both sexes. The bill is very much hooked, and of a cream colour, red at the base and black along the edge of the upper mandible, yellow at the tip of same, and slaty black at the tip of the lower mandible. At the base of the bill is a raised narrow white border. An average length of bill is $4\frac{3}{4}$ inches, measured along the side from base to tip. The colours in these birds are very varied. The head, neck, and throat are glossy black; the breast yellow and freely flecked with red. A band of black crosses it, also freely mixed with red. The thighs are chestnut brown, the rump scarlet; and the wings and tail olive green, except the primaries, which are brown. The under side of the tail feathers is a much lighter green than the upper. The bare skin round the eyes is bright red shaded into blue, the iris creamy yellow, the pupil dark green, and the legs and feet olive. The length of the bird, without the bill, is $13\frac{1}{2}$ inches, of which the tail measures $6\frac{1}{2}$ inches. We constantly saw these Toucans feeding amongst Tanagers and still smaller birds. I never saw any of them in captivity among the natives, nor any other Toucans either, on this side.

Ranging from the level of Santo Domingo up to the outer spurs of the mountains, we found the exceedingly pretty little Green Toucan, *Aulacoramphus hæmatopygia*. The whole of the bird is bright green of various shades, with some pale blue at the base of the bill and about the breast. The primaries are blackish olive, the rump crimson, and the tail dark bluish green with deep chestnut tips to the feathers. The skin around the eyes is red, and the bill uniform dark red shaded with black, and a pure white line at the base, much wider on the lower than on the upper mandible. This is another Ecuadorian bird which is found on the Eastern side, with a slight change in the markings. The difference is that *A. albivitta* has a greyish white throat, and greenish yellow on the bill.

I now come to that beautiful group of *Andigena*, which inhabit the highest altitudes of all the *Rhamphastidæ*. There is only one member that I know of found on the Western side, namely the *A. laminirostris*. These birds inhabit a region between 5,000 ft. to 6,000 ft., and like all the *Andigena*, live in pairs only. The total length of the bird is 17 $\frac{3}{4}$ in., of which the bill measures 3 $\frac{1}{2}$ in. and the tail 6 $\frac{1}{2}$ in. They have a far thicker covering of feathers than other Toucans, which at once shows that the *Andigena* are made to stand a much colder climate. I have never seen any of these birds in captivity, and yet above all other kinds of Toucans, they are admirably suited for our climate, even to wintering out of doors. The prevailing colour of most of them is mauvish blue. The *laminirostris* has the whole of the breast and underparts of this colour, and it extends in a lighter and still brighter shade almost right round the neck. The head and nape are velvety black, and the wings and back are rich olive tobacco colour, the flanks are orange, the rump primrose, the vent and thighs chestnut. The tail is slaty blue on the upper surface with deep tips of pale fawn. The bill is black and very red at the base, and the upper mandible has a very curious sheath-like piece on each side at the base, 1 $\frac{1}{2}$ in. long. One half of this is creamy yellow and looks for all the world as if an outer casing of the bill had been taken off, leaving only this irregular piece on each side. The pieces being partially detached from the bill itself, still further emphasize this effect. At Papallacta, on the Eastern side, we shot some still more beautiful members of this genus, the *A. hypoglaucus*, and just a little lower down, *A. spilorhynchus*. It was the former Toucan which has such an exquisite bill, that I was thinking of when I wrote my February article, and mentioned it as coming

from such a cold place, and not the *A. laminirostris*. The pale blue *spilorhynchus* is undoubtedly the handsomest of all this beautiful group. They range up to a much higher altitude on the Eastern side than the Western side. The trade winds blowing from the Atlantic right across Brazil, strike the great chain of the Andes, and the moisture they bring causes the forest to grow up to a much higher altitude on that side.

Papallacta is an Indian village standing 11,500 ft. above the sea level. We had a sharp touch of frost every night during our stay there, and the days, too, were cold and miserable if the sun did not shine. It lies in the bend of a spur of Antisana, the third in height, and the most glorious of all the great Andes of the Equator. Its situation is most romantic and verdant, but the Indians there have a bad reputation among the Ecuadorians. Physically they are fine, handsome fellows, and I can only speak well of them for we met with much kindness during our stay among them. The village is much cut off from everywhere else owing to the dreaded Guamani Pass, which has to be crossed at an altitude of 16,000 ft. to get there. The Pass is only open part of the year, when the snows are somewhat melted, and is always dangerous as I know to my cost, for I crossed it three times. We procured many rare birds from Papallacta, and sixteen specimens of a beautiful new species of Humming Bird, the *Helianthia hamiltoni*; still we were rather glad to shake the dust (or rather mud) of this village from our feet. It was from here we had to start on our long journey on foot down to Napo, and the day before we reached that river, I met a Napo Indian with a pretty little specimen of the curiously-coloured Reinwardt's Toucan, *Selenidera reinwardti*. Just as he had consented to let me have it, I repented of my bargain and thought what a trouble it would be on the rest of the journey. I have always regretted since that I did not have it, for we never met with them ourselves and this was the only specimen I have ever seen alive. It had evidently been brought up by hand.

By far the commonest Toucan along the Napo was the White-breasted Toucan, *R. toucanus*. "Dumbiqui" they were called by the Napo savages who slaughter them by the hundreds. Many tribes almost live on these birds, and the wonder is that they have not been exterminated long ago. Their flesh is decidedly not to be despised, it is far superior to Parrot, and cut open and fried they made quite a tasty dish. I once saw a canoe on the Napo which had over a thousand skins on board of these Toucans alone. The Indians use them for making their dresses

and ornaments, and also for ornamenting their weapons. Some wear beautiful thick ruffles of the crimson and yellow feathers round their heads, arms and legs, and carve many quaint necklaces out of parts of the bills. This was the largest species of Toucan we met with in our travels. They vary immensely in size, and I am inclined to think there is really a larger and smaller variety, with a slight difference in the shape of the bill. I have some large cabinet specimens of this bird, but I measured a male which had a bill 11 in. long. I had a very fine one given to me alive which I kept on the Napo for nearly two months. I intended to bring it home with me, but it died rather suddenly, I suspected from eating salt fish. It was a most amusing bird and although it was caught when fully adult, it was just as tame as a bird could be. Our hut at the Coca was built high above the ground on poles and had a wide outer platform running round it, and the Toucan delighted in going with a flying hop round and round the hut on this platform. At meal times it would sit on my knee, or dispute with the dogs and Trumpeters for the pieces of yuca we threw down. It seldom flew down to the ground below, and when it did it was merely for the pleasure of quickly hopping back up the long ladder. It was a treat to see it chase the fowls off the platform, and after a time they quite got to know they were not to come up there. At night it roosted in a bread-fruit tree by the side of the hut, and for a long time after I first had it, it caused me much anxiety every night by choosing the most open and exposed position possible on the tree. We were then in the wet season and on most nights the rain descended in one deluge, and my fear that it might, in company with other pets equally stupid in this respect, get washed from the tree and killed by the force of the storm caused me to pass many sleepless nights. It would present a very sorry appearance in the mornings, and was so wet as to appear to have scarcely a feather on it, but it quickly dried and never seemed any the worse for its nightly drenching, so I ceased to trouble about it. It would always get so near to the end of a branch, that sometimes it would fall off a dozen times before it finally settled down. When I got up in the mornings it was always waiting on the platform at the hut door for its breakfast in company with the Trumpeters, a Hangnest and some Guans, and each one vying with the others in their affectionate greetings.

I wonder if any of our members, who live in a suitable place in the country, have ever given these birds their liberty in

a garden. There need be no fear of their straying away when they once know the place, and I cannot imagine keeping them, during the summer months, under more ideal conditions. They could then be seen and studied to their best advantage, and would well repay their owners by their amusing ways. I have seen various kinds of Toucans kept by the Indians of Eastern Ecuador, and given their full liberty in the forests around their huts. They never strayed far away, and it was remarkable how quickly they came flying back to the huts on the slightest call from the Indians, or when they saw cooking going on. Among other Toucans we shot on the Napo, were *Pteroglossus castanotis*, *P. pluricinctus*, and the still prettier little *P. flavirostris*. All these birds much resemble one another, and all combine the same colours but differently arranged.

I had intended to finish up this article by writing about those handsome and curious birds the Toucan-like Barbets of Ecuador, *Tetragonops rhamphastinus*, but as it is already far too lengthy, I must reserve my remarks about them and one I kept, for some future time.

(To be Continued).

AVIARY NOTES.

By ROSIE ALDERSON.

My smaller birds' aviary stands in a sunny old-fashioned orchard-garden. It is built against a high brick wall and faces due south.

The house is composed of two thicknesses of wood with felt between, and the span roof is of corrugated iron lined with wood; the whole being varnished inside except the back wall which is whitewashed. The dimensions are 16 ft. long by 9½ ft. wide, and 13½ ft. high at the highest point of the roof. The front of the aviary is wired to within 2 ft. of the ground, and along the whole length ten glass-panelled moveable shutters are fastened by means of bars and screws. In summer the shutters are removed altogether, but in very cold weather they are all kept up (forming a large window 16 ft. long by 5½ ft. high). These shutters can be fixed or removed in a few minutes, and are all independent of each other, so that one or more can be taken down without interfering with the rest. Added on to each front end of the aviary is a wooden porch with double doors, the outer with glass panels, the inner with wire. Inside each porch is a shelf for seed canisters, etc., over the door. Cluster roses and

ivy climb up the house and greatly improve the appearance of what is only a very plain structure. At each end of the aviary there is a window, and in the roof two skylights, all made to open. The house is divided inside by a wire partition, making two compartments. There is a water supply in each aviary constantly running, the stone basins being shaped so that the birds can bathe in any depth they wish. The waste pipe is only a half-inch one, and this I found would have been better larger as it occasionally gets choked with husks and sand, and is rather troublesome to clear again. The birds greatly delight in their bath, and I think it has much to do with keeping them in health. Under each window is fixed a shelf $4\frac{1}{2}$ ft. long by 1 ft. wide. In these shelves are cut holes large enough for an ordinary saucer to fit into, the holes being sloped at the edge to prevent the saucers falling through. These shelves are cleaned every morning, and the saucers refilled with seed, they are also washed when the aviary is done out every week. I find this method of supplying food much more convenient than hoppers, and besides so many more birds can feed together at the same time.

At first I had the floor of the aviary sodded, but finding it impossible to keep it clean I substituted grey tiles, and find it much better than grass. The tiles are sprinkled with fresh red sand every week. It does not seem harmful to the birds in any way, though river sand would doubtless be much better, but it is difficult to get here and very expensive. At different places about the aviary are fixed wooden blocks with holes in them into which bare tree branches are screwed for the birds to perch in. (Fastened in this way there is no fear of them coming down.) Cigar boxes and rush nests are placed amongst the Scotch Fir and gorse branches, these being renewed twice a year. Two large cages are in the larger aviary fastened to the walls, but these are chiefly used for temporary tenants, or for any birds that require catching up and nursing. All the birds that can be given their liberty are allowed to fly loose in the aviary, and are so accustomed to having visitors that they seldom show any fear of strangers, while to the attendant (who is exceedingly kind and considerate to his small charges) and myself they are quite indifferent, and carry on their various occupations just as if we were not there.

Once a year the aviary is brushed out from roof to floor with plenty of Sanitas and soap, and the wall at the back white-washed. The first year I heated the aviary with an oil lamp in one of the porches. All went well for some time, but one night

the lamp went wrong, and next morning—New Year's day, of all days in the year—I found half my birds dead on the floor. The aviary was covered with soot, and the surviving birds a pitiful sight, dirty and terrified. At the time I felt quite disheartened and would have been thankful to anyone to have taken birds and aviary out of my sight for ever. Many of the victims were old favourites that I had had for years, and it was sad work collecting the little bodies. The lamp was banished, though I suspect the accident was due to my own mismanagement, and for the remainder of that winter and all the next the birds had no artificial heat. They kept well but the winters were mild ones and I could not expect this to be the case every year, so in the autumn of 1899 I had a small boiler fixed under the floor at one end of the aviary, and piping fitted in the house. It was rather awkward to arrange, as part of the floor had to be taken up, and some of the pipes laid underneath owing to the position of the doors. The birds seem much brighter for the extra warmth, and the method of heating the house is so simple that anyone could manage it. The fire, after being mended late in the afternoon, lasts all night and well into the next morning. I was told that the birds would probably sit on the hot pipes and so weaken their legs, but I never see a *healthy* bird sitting on them (except a few lazy little Doves); occasionally a sick or weakly bird will perch there for the sake of the warmth, and in this case I do not think it can be harmful. At first I had some wire guards made to fit over the pipes, but I removed them as they were not only unnecessary but dangerous, for having to be moveable to keep them clean it was impossible to make them fit quite closely, and sometimes a bird would get inside and graze its forehead in its frightened attempts to get out again.

The following birds are kept in the aviary. In the smaller division: Avadavats, Bronze Mannikins, Cordon Bleus, Green Avadavats, Grey Waxbills, Lavender Finches, Orange-cheeked Waxbills, St. Helena Waxbills, one cock Cherry Finch, one hen Zebra Waxbill, one pair of Barred Doves and two pairs of little Passerine Doves. The latter on their arrival were very wild and nervous. I suppose their wings must have been clipped, for none of them could fly at first. They are quite tame now and scarcely trouble to move out of my way; spending all their days on the ground, and at night going into the branches to roost. They love to sit in a row on a sod of grass in the sunshine, and always keep much together.

In the larger division are Barred Doves, Diamond Doves,

Diuca Finches, Pileated Finches, Spice Birds, Java Sparrows, Citril Finches, Black-headed Mannikins, Nonpareils ; Zebra, Ribbon, and Parson Finches ; a Combassou, Diamond Sparrow, and a Paradise Whydah (cocks), a Siberian Goldfinch, an odd Silverbill ; Russ', Masked, Napoleon and Orange Weavers, a pair of Black-headed Gouldians, and a Red-crested Cardinal. Besides these, several Canaries and Goldfinch Mules ; these latter are very tame, and, I believe, are a great help in quieting wilder birds or fresh arrivals. In my Doves' aviary, I find one or two Barbary Doves serve the same purpose.

A pair of Indigo Finches had to be put into the smaller division, owing to the animosity of the cock Nonpareil, who, directly the cock Indigo was introduced into the aviary, tormented him, though he was quite friendly with the hen, and also with a previous cock of the same species. This hen Indigo has just returned from having an operation performed on her. Two tumours formed on her forehead, one over each eye ; one seemed to shrivel up, but the other got much larger. The bird remained for some time in this state, but, strange to say, her bodily health did not seem to suffer. At last, not liking to see her in such a condition, I sent her to Mr. Arthur, at Melksham, who most kindly took out the tumours for me. He told me that, at some time or other, the poor bird's upper mandible had been splintered at the base. The operation has been quite a success, though, of course, the place being of such long-standing date, it has left a scar ; but the bird looks like living for years, and is much healthier and happier.

Of course, among so many birds, I do not expect much success in nesting, but they are all very happy together, and so far I have only had one severe fight, when a Saffron Finch attacked and killed an Indigo. Having thoroughly beaten it, the victor rested satisfied, and during the whole of the week that the Indigo lingered they were quite peaceable. The poor bird's head was badly pecked, and one of its eyes blinded. I had hopes of its recovery, but one day I found it dead. A short time afterwards the Saffron developed murderous tendencies towards a Citril Finch, and one day I came into the aviary just in time to find the latter pinned to the ground, and the Saffron, by repeated blows, trying to break his skull. Formerly the Saffron lived in a large cage with a hen and several other birds. Here he was good-tempered ; but on being turned loose into the aviary with a second hen—the first one died—he became quite dangerous to the other birds.

As regards food, the birds have the usual seeds : canary, Italian and Indian millet, with the addition of hemp in the larger aviary ; here also they like a little boiled apple, but the small Waxbills will not touch it. Preserved yolk of egg mixed with crushed broken biscuit and a little mawseed, given dry, is much appreciated by all the birds ; also four kinds of grass seed—meadow fescue, Timothy, Sutton's dwarf perennial rye grass, and plantain or rib grass. Mealworms, and a few soaked ants' eggs are given every day, though the smaller birds only seem to care for the former item. In summer, flowering grass, chickweed, lettuce, and dandelion. In winter I have tried different seeds sown in shallow pans, and given when the seed has grown an inch or so high ; this way of supplying green food is very useful when none can be had outside, and, being grown in a pot, it is always clean, as the birds cannot drag it about on the floor and soil it.

So far, they seem to prefer rape (summer) seedlings to anything else, the Doves also being fond of the winter variety. I have also tried canary, hemp, and millet, but have hardly experimented long enough to say with certainty which the birds like best. In summer I catch so many earwigs on my dahlias (in inverted flower-pots half filled with crumpled brown paper) that I am thinking of trying to preserve them in the manner described by Dr. Greene, for winter use. The Indigo and Pileated Finches are especially fond of them, and of beetles, when they can get them.

In each aviary, a bunch of spray millet is hung from the ceiling, and a pot of grit, crushed egg-shell, and scraped cuttlefish bone is always on the floor. Large pieces of cuttlefish are wired (a hole being pierced at each end) among the forked branches ; at first I fastened them with string, but find that wire keeps them much steadier, and, placed in this way, the birds can get at the bone much better than when hanging from the end of a branch which swings away every time it is pecked at. It is hard to say which of the birds is most interesting, for they each have their own small characteristics ; but the hen Shâma, the Pileated Finches, Cordon Bleus, Lavender Finches, and the tiny Passerine and dainty little Picui Doves, should certainly have the first places.

NOTES ON THE PLOCEIDÆ.

By F. FINN, B.A., F.Z.S.,

Deputy Superintendent Indian Museum.

II. ON THE INTERBREEDING OF CERTAIN SPECIES OF MUNIA.

In January, 1897, I procured alive, in Tiretta Bazaar, Calcutta, a specimen of a Munia agreeing with *Munia malacca* in its general characters, but having the white portions of the plumage suffused with chestnut, and during the present year I have detected in cages of *M. malacca* many specimens showing more or less of this rufous colouration below, and have secured some for the Museum.

It is this occasional variation of the white lower parts, no doubt, which is alluded to by Mr. E. Bartlett (Monograph of the Weaver-birds, &c.), under this species, in his description of the female, which he says, has "the white chest and sides strongly tinged with creamy-buff." But among the rufous-washed specimens procured by me most turned out to be males, while even the small series at present possessed by this Museum of the pure *M. malacca* shows that the underparts of the female are white like those of the male, as stated by Dr. R. B. Sharpe (Brit. Mus. Cat. Birds, vol. XIII, p. 331) and implied by Dr. A. G. Butler (Finches and Weavers in Captivity, p. 244).

This colouration is evidently not a stain (like the rusty tinge on the under-plumage of waterfowl, which I have seen assumed in a single night by a male Pintail (*Dafila acuta*) kept unpinioned on the Museum tank, which he used to leave and return to). I conclude this to be the case from finding the other birds in the cages with the tinted ones to be clean and pure white, and from the fact that immature birds still showing the light-brown plumage *moult out* either rusty or pure white below, according to the colours shown at first. I have tested this in three specimens kept by Major Alcock in his aviary, two of which have proved to be hens, and one a cock.

This departure from the typical colouration of *M. malaccy* is no doubt caused by casual interbreeding with the nearly allied *M. atricapilla*, and a similar explanation would no doubt apply to the yellow-marked specimens of *Ploceus atrigula* alluded to above. It would, however, be satisfactory to have the fact placed beyond doubt by pairing the two species in captivity, which might easily be done. At the same time, in confirmation of the interbreeding theory, it may be mentioned that Dr. Butler in the

work above quoted (p. 220) cites Dr. Carl Russ to the effect that the African *Aidemosyne cantans* and its very near ally the Indian *A. malabarica*, which do not meet in a wild state, interbreed indiscriminately in captivity. In view of cases like these, and of the fact that extreme forms of intergrading species, such as *Corvus corone* and *C. cornix*, and *Coracias indica* and *C. affinis* are positively known to pair up together, I cannot accept the theory that such intermediate specimens as occur midway in the range of intergrading forms represent the parent species in its as yet undifferentiated form, as has been advanced by some naturalists. For the progenitor of two given species need not have necessarily been an absolutely intermediate type, though the hybrid may be so, as has been proved by experimental breeding. For instance, we may presume that the ancestor of two species the males of which exhibit decorative colours, would have resembled the duller females and young of the existing forms; e.g., the primitive ancestor of the common Bullfinch (*Pyrrhula europæa*) no doubt resembled *P. murina* of the Azores, and that of the Linnet (*Linota cannabina*) the duller coloured Twite (*Linota montium*). Yet when these two Finches are crossed in captivity, the "mule" has a pink breast, a piece of decorative colouration which was almost certainly absent in the common progenitors of the Bullfinch and Linnet genera.

Lastly there is strong reason to suspect that species arise suddenly as far as colour-variations are concerned. The Red-headed form of the beautiful Gouldian finch (*Poephila mirabilis*), is an example, and is especially interesting as showing how such sports may tend to increase, as it has been found by Dr. Butler to be more attractive to the hen than the less brilliant black-headed variety.

ZOO NOTES.

By J. LEWIS BONHOTE.

VIII.—APRIL.

April	3	2	Yellow-billed Ducks— <i>Anas undulata</i> S. Africa.	Duck Ponds.
		1	Wedge-tailed Eagle— <i>Aquila audax</i> Australia.	Eagle Aviary.
		1	Greater Sulphur-crested Cockatoo— <i>Cacatua galerita</i> Australia.	Parrot House.
„	5	1	Marabou Stork— <i>Leptoptilus crumeniferus</i> Western Africa.	Crane House.
„	6	4	Spot-billed Ducks— <i>Anas pæcilorhyncha</i> India.	Duck Ponds

April	9	2	Masked Wood Swallows— <i>Artamus personata</i>	Australia.	Western Aviary.
		2	Australian Thicknees— <i>Edicnemus grallarius</i>	Australia.	" "
"	11	1	Roller— <i>Coracias garrulus</i>	Europe.	" "
"	12	1	Lyre Bird— <i>Menura superba</i>	Australia.	" "
"	20	5	Widgeon— <i>Mareca penelope</i>	Europe.	Duck Ponds.
		3	Pochards— <i>Fuligula ferina</i>	"	" "
		3	Tufted Ducks— <i>Fuligula cristata</i>	"	" "
		4	Golden Eyes— <i>Clangula glaucion</i>	"	" "
		1	Pin-tailed Sand Grouse— <i>Pterocles alchata</i>	Europe	Western Aviary.
		1	Hybrid Sand Grouse— <i>P. alchata</i> and <i>P. pyrenaica</i>	Bred in England.	" "
"	23	2	Upland Geese— <i>Chloëphaga magellanica</i>	Falkland Isles.	Duck Ponds.
		2	Golden Pheasants— <i>Thaumalea picta</i>	China.	Pheasantry.
		2	Sœmmerrings Pheasants— <i>Phasianus sœmmerringi</i>	Japan.	"
		1	Cactus Conure— <i>Conurus cactorum</i>	Bahia.	Parrot House.
"	24	1	Musky Lorikeet— <i>Glossopsittacus concinnus</i>	Australia.	" "
		3	Blue-crowned Hanging Parrakeets— <i>Loriculus galgulus</i>	Malacca.	" "
		1	Ural Owl— <i>Syrnium uralense</i>	N. E. Europe.	N. Aviary.
		2	Silver Pheasants— <i>Euplocamus nycthemerus</i>	China.	Pheasantry.
"	27	3	White-backed Trumpeters— <i>Psophia leucoptera</i>	Upper Amazon.	Eastern Aviary.
		4	Wonga-wonga Pigeons— <i>Leucosarcia picata</i>	Australia.	Western Aviary.
		2	Germain's Peacock Pheasants— <i>Polyplectron germaini</i>	Cochin China.	Pheasantry.
		2	Japanese Pheasants— <i>Phasianus versicolor</i>	Japan.	"
		2	Cabot's Tragopans— <i>Ceriornis caboti</i>	China.	"
		1	Tawny Owl— <i>Syrnium aluco</i>	Scotland.	N. Aviary.

This month's arrivals, although fairly numerous, contain no species of exceptional rarity, and, owing to the cold winds at the time of my visit, most of the occupants of the Western Aviary were in their winter quarters, and "not at home" to visitors. This was rather annoying, as I was particularly anxious to see the Lyre Bird (*Menura superba*) from Australia. These birds are, as many members are aware, a very aberrant group of the Passeres, or perching birds, being most nearly allied to the Chatteras (*Cotinga*) and Pittas. They are large birds, bearing an outward and superficial resemblance to the Peacock,

and are distinguished by the long and peculiarly shaped tail feathers. They possess considerable powers of mimicry and also indulge in many interesting antics, returning to a particular spot daily in which to show off their natural beauties.

The other arrivals in that aviary consist of a pair of Wood-Swallows (about which Mr. Fulljames has already written), a Roller (which I did not see), and several Sandgrouse. The older inhabitants of the Western Aviary may now be seen at their best, and, judging by the volume of sound, many of them are in full song.

The Piping Crows, to which I drew attention in my last month's Notes, do not seem to have made any substantial progress towards increasing their species, though one of them was running about with a leaf, which he did not seem to know quite what to do with. A pair of White Storks (*Ciconia alba*) have nested on the ground under a small tree in their aviary, and the female was sitting on the nest and presumably on eggs.

I have nothing further to record about the Knots; the pair still keep together, but have lost much of their ardour, and the affair will probably end, as I feared, in smoke.

Since last writing, the Great Aviary, opposite the Eastern Aviary, has been filled up with its summer inhabitants, and several species may now be observed commencing nesting operations, *viz.*, Glossy Ibis, Black-headed and Jameson's Gull, etc. The two Australian Thicknees, reported in the Western Aviary, have been placed here; these much resemble our indigenous species, but are slightly larger, and in their present quarters give one splendid opportunities of observing the habits of this very shy bird.

The following is a list of the birds bred in the Gardens during the year 1899, and is chiefly remarkable for its extreme brevity; none of the birds mentioned are worth more than passing notice, as, with the exception of the Upland Geese, they are all known as *very* free breeders in private aviaries.

- 1 Eagle Owl (*Bubo maximus*).
 - 6 Glossy Ibises (*Plegadis fulcinellus*).
 - 4 Summer Ducks (*Aix sponsa*).
 - 1 Mandarin Duck (*Aix galericulata*).
 - 2 Upland Geese (*Chloephaga magellanica*).
 - 4 Variegated Sheldrakes (*Tadorna variegata*).
 - 2 Spotted Turtle Doves (*Turtur suratensis*).
 - 2 Jameson's Gulls (*Larus novæ hollandiæ*).
 - 2 Hybrid Herring Gulls (*Larus argentatus* and *L. cachinnans*).
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CORRESPONDENCE.

THE WHITE-WINGED PARRAKEET.

SIR,—I am much obliged to Mr. Phillipps for kindly correcting the error I made in my last article, in calling the *Protogerys virescens*, the Canary-winged Parakeet. At the time of writing I was ignorant of the name it was generally known by in English, hence my calling it as I did, although, of course, I am aware that another bird is usually known by that name. Still, Canary-winged certainly suits it better than Yellow-winged as the Zoological Society have called it, for some Canaries are very pale yellow indeed. When flying, the wings of the *B. virescens* do look quite white, and I remember one day on the Napo, Mr. Hamilton telling me he had seen some Parakeets fly over with white wings. I could not think at the time what they could have been, until a few days later, we began to meet them in great flocks. When the wings are closed, the light part which shows is very yellow, but when spread out, the wings are of such an exceedingly pale colour, that they might be called White wings. Although, as a matter of fact, none of the feathers are *pure* white, but the palest of pale canary colour.

I suppose Mr. Phillipps means that these are rare birds in captivity in England; as will be seen from my remarks about them, on page 126, they were anything but rare on the Rio Napo. I saw numbers of them in captivity in Iquitos, and the sailors on the boat we travelled on from the Rio Javari to Mánaos, brought dozens of young ones down the Amazon with them. I also saw a cage containing perhaps forty or more of them in the dealer's shop I mentioned in Pará, so I concluded they must be well known also in England. I have been out of England myself, so much during the past twelve years or more, that I am rather out of touch with matters relating to the birds the dealers now import.

The pair of White-winged Parakeets I brought home with me, have now passed into the hands of another Member of the Society, and I trust we may hear of their having successfully nested during the summer, for I feel confident they will do so if given the proper conditions. I brought them up by hand but not from the same nest.

The *B. chiriri* we never came across during our travels. Does it not come from Paraguay?

WALTER GOODFELLOW.

A PROPOSAL TO EXTEND THE SCOPE OF THE MAGAZINE.

SIR,—One would like to ask Dr. Butler's grounds for his assertion that Mr. Fillmer's proposals if carried out "would result in the retirement of all the scientists amongst our members." I, for one, should not retire: but perhaps I am not a "scientist" in Dr. Butler's estimation. It would be interesting, by-the-bye, to learn whom Dr. Butler includes under the term "scientists." His note certainly implies that he would include himself and exclude Mr. Fillmer. Possibly if all our "scientists" retired, the Society would not have its numbers greatly reduced.

C. S. SIMPSON.

SIR,—As members are invited to give their views on the subject of the proposed alteration in the *Avicultural Magazine*, I wish to say that I

heartily agree with Mrs. Barnes, Dr. Butler, and Mr. Phillipps, who have already recorded their opinions.

Surely it would be a very great pity to abolish the *Avicultural Magazine*, which, as Mr. Phillipps points out, must be the practical result of opening our pages to "other living creatures besides foreign and British birds."

Birds are by no means the only living creatures in which I am personally interested—*very far from it*—but there are sources to which we may apply for information about our other friends, and this is not the case where foreign birds, at least, are concerned.

When I obtained my first pair of little foreigners, in May, 1892, I had not the least idea how to treat them or where to look for information; there seemed an ample supply of books about *Canaries*, but these did not help me. I found Dr. Russ' little handbook; then I was told of the U. K. F. C. B. S., and advised to become a member; and I well remember how delighted I was with the Magazine.

Canaries have quite their share of attention and many devoted friends, so I think that those of us who set our affections on foreign or British birds may fairly keep our Magazine "all to ourselves," as the children say.

(Miss) E. E. WEST.

GANGA COCKATOO.

SIR,—Would you be so kind as to tell me if I am treating a pair of Ganga Cockatoos correctly. They have been in a cold house all the winter, and the cock, being in bad plumage, I put them in a small aviary in the conservatory about three weeks ago. He has no flight feathers or tail, but his other feathers are plentiful, smooth, and even. I think his flight feathers are coming. The hen is in good plumage, and has only lost a few feathers from the top of her head.

I feed them on oats, sunflower seed, canary, boiled maize, and eucalyptus (peppermint) seed—of which they are very fond. They also eat cuttlefish bone, rock salt, and green food (dandelion and groundsel).

They show every inclination and wish to breed. I gave them a small barrel with a hole which they have nearly demolished, but are constantly in and out of what remains. They make a curious snarling noise, and appear to be feeding each other. They are quiet through the day, but exceedingly lively in the early morning and evening. Could you tell me if you think the hen is likely to lay, and if I am treating them rightly? The conservatory is not heated. They are fairly tame and not at all nervous, but are kept as quiet as possible. I have given, the last two days, ten drops of Parish's chemical food in their water, but they drink very little at any time, and never bathe.

MARION JOHNSTONE.

The following reply was sent to Mrs. Johnstone :

I have not any personal experience of this bird; but, from what Gould and Russ state, your treatment appears to be quite correct. I should have thought it hardly necessary to boil the maize for such powerful birds; and, if they were mine, I would occasionally give a few nuts in the place of sunflower-seed (change of diet is always good, provided that nothing unwholesome is given).

It is just possible that your birds may breed; if so, it will be a triumph for you; as, I believe, there is no record of this species ever having bred in captivity. In its wild state it lays in the hollow spouts of lofty eucalyptus trees, but always at such a height that it is impossible to take the eggs. It would, therefore, be well to fix your log-nest or barrel as close as possible to the top of your aviary.

A. G. BUTLER.

THE WOOD-SWALLOW SHRIKES.

SIR,—I have just received the *Avicultural Magazine* for May, and have read with interest Mr. Fulljames' article on the Wood Swallows.

The description he refers to, as given by Dr. Brehm of *A. sordidus*, viz.: "The hen is smaller than the cock, and presents a spotted appearance, &c." is evidently that of a young bird in its nest feathers, and not that of a mature female.

I have obtained specimens in Australia just able to fly, and they are brown spotted all over with dirty-white, with the exception of the flights and tail, which are dusky slate colour. The old birds of both sexes are without spots of any kind.

I believe that the young of all the Wood Swallows are more or less spotted when they leave the nest.

NORMAN B. ROBERTS.

THE

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THE AUSTRALIAN YELLOW-BREASTED ROBIN.

(Eopsaltria australis).

By The Rev. C. D. FARRAR.

A few mornings ago I received a kind but imperative letter from our Editor asking for an article for the Magazine, as matter was very short. Of course I felt bound to do my best, like a good and obedient member of the Society. I select for my article a bird that is probably quite unknown to the majority of our readers, except from the writings of Gould. Some months since, I, one morning, got a letter from a birdy friend, that he had brought over from Australia a pair of Yellow-breasted Robins. The letter was rather pathetic, for it ran, "This is the *third* time I have made the attempt to import them; but always, so far, unsuccessfully." The fourth time, however, had been crowned with success, and a pair had landed safely in England. Would I have them? I suppose I ought to have said "No! offer them to some more worthy member." Maybe I did a mean and selfish thing, but I said, "Send them on."

This is a truthful narrative, and I must confess that my only feeling was one of unmixed rejoicing. I believe we Aviculturists are brutally selfish. I have occasionally moralized over the selfishness of buying half-a-dozen rare birds, but it was not, if I remember rightly, the *first* of the kind that had ever come. My feelings always grow *finer* as specimens become less rare!

A few mornings after the arrival of the letter aforesaid, the Yellow Robins themselves turned up. They were in perfect health and the most beautiful condition; and when we remember the trouble it is to keep soft-billed birds in good condition in England in a large aviary, and with every sort of suitable food and appliance at hand, it speaks volumes for the care and skill that must have been lavished on my yellow beauties.

In shape, the Yellow Robins very much resemble their

American cousin, the Blue Robin; and the disposition of the color is the same. If for the blue head, back, and tail of the Blue Robin you substitute ashen grey; if instead of the red breast and dusky throat of the Blue Robin you substitute a white bib and a primrose breast and underparts, then you have Master Yellow Robin. The eye is very full and dark, the beak black and shortish with hairs round the base; feet dark lead color. The hen can be told from the cock by her wings. In the cock there is a greyish, white bar; in the hen it is slate color. My couple are very affectionate, and always follow each other about; and now they are busy feeding each other with mealworms, which seems to foreshadow matrimonial ventures.

For a time I kept them in a cage, as the weather was bitterly cold; but in a perfectly unheated room, where the water was nightly frozen into a solid block of ice. They did not appear to mind the cold a bit, and always took their tub with praiseworthy regularity.

I feed them on a mixture of my own invention. If anyone asks me how I mix it, I reply, as did a certain great painter, "With my brains." It suits them admirably, as they show by their trim coats and sprightly ways.

They are absurdly tame, though out in a big garden aviary. When I go in and sit down, they flit about pretending an intense unconsciousness of me and my belongings, until they have satisfied themselves that I am not inimical; then they become bold, not to say impudent, and hop and peck about in search of unconsidered trifles, and evidently intend that you should consider them one of the family.

At your departure the cock calls his mate, and the last bit of vitality, I see is the couple inspecting my remains and comparing notes—complimentary or otherwise—on my habits and ways of life generally.

From their dress and manner, I should suppose them to have been, in a prior state of existence, connected with the Quaker interest.

They are at present living in sweet companionship with a pair of English Blackcaps and about half-a-dozen Many-colors. This latter is not a tarradiddle!

Some writers tell us that all Parrakeets "destroy every green thing which grows upon the face of the earth." They are "incompatible" (I think that is the correct scientific term) with

shrubs; also they are described as professional murderers of all besides themselves.

My Many-colors may some day do both! When they do, I will believe. Till then I will endeavour, as our late Secretary once asked me, to keep an "open mind," as open as that of a statesman uncertain in what direction the popular cat is going to jump, or as the valves of an oyster long parted from its native bed.

THE LITTLE FINCH.

(*Phonipara pusilla*.)

By REGINALD PHILLIPPS.

A description of this bird may be found at page 147, vol. xii. of the Natural History Museum Catalogue; but not in any other work that I possess is it so much as referred to, although its near relations *P. canora* and *P. lepida* or *olivacea* (Cuba and Olive Finches) are mentioned by writers, old and new. By what English name it is distinguished I do not know; so I am calling it "The Little Finch" until otherwise instructed.

On 2nd August, 1899, three young males came into my hands, to which were added, on the 28th, two females, one fairly good but the other nearly as round as a marble. When received they seemed to be just moulting out of their nest feathers.

The males, which were very quarrelsome amongst themselves, may be distinguished as Nos. 1, 2 and 3. Males 1 and 2 (No. 3 was afraid of the others and kept in the background) were most anxious to nest, but only with the best female, ignoring the other, and also a healthy young female Cuba Finch who share a large flight-cage with them.

On 3rd September, I found the best female dead in a tiny saucer of water; doubtless she had been set upon by the two males while taking a bath, and had become so saturated and weakened as to be unable to get out.

All my hopes had been centred on this bird, for the surviving female did not look like living. Nevertheless I quickly cleared out the males, and brought all my limited store of medical knowledge to bear upon her; and with un-hoped-for results, for little by little she distinctly got better. Male No. 1 I had in the meantime paired off with the Cuba Finch, considering her to be the more likely female of the two; but at that time he would not look at her: with a wisp of hay in his bill, he had only one thought, and that was to get out of his cage and join

the female *Pusilla*. Later, however, when his cage was filled up with winter immigrants and the time of his opportunity had passed, he seemed to have developed in a feeble way a sort of a liking for the gentle Cuban maiden.

In course of time I placed male No. 2 with the female; and he at once commenced nesting, but was not encouraged either by myself or his mate. Occasionally I would let her loose in the room to get up her strength, and then she displayed an extraordinary avidity for the flies in the window. Taking the hint, I added a few of the tiniest cockroaches to her food; but day by day, as her strength increased, her craving for the insects died away; they had done their work, however, for the health of the bird had marvellously improved.

All this time the male had been busy carrying hay up to the top of the window curtains, and had been unceasing in his endeavours to persuade it to remain in the open space between the top of the curtains and the wall; but his efforts to build without a foundation were not rewarded with success, and resulted only in a great litter on the floor.

In the hope that a nest might be managed before the winter, both birds being by this time comparatively strong, I fixed a little box close by where he wanted to build, but he wouldn't look at it. I then placed a wire cup on the edge of the box, and in this an open nest was quickly constructed. Then, and not till then, did the female betray any interest in his proceedings. She flew up to and inspected the nest most critically, but, to the intense mortification and disappointment of the tiny architect, condemned it as unsuitable, and would not look at it again. All over the room the poor little fellow hunted for a likely spot, but for a time in vain. Occasionally he would slink up to the nest, as if to try and soften her obduracy, but to no purpose—her heart was as hard as a nether millstone.

In the bay window there were two eucalyptus trees; and just about this time I brought in a third, placing it more inside the room than the others, for the birds seemed a little afraid of our quiet street and its occupants, the latter consisting mostly of nursemaids with their charges and the cats, all of whom were over-fond of stopping to have a look at the "Dickie-birds." In this inner eucalyptus tree, over seven feet high and fairly thick, the male tried hard to build a nest, but could not get the materials to hold; probably a "Christmas Fir" would have been more suitable. I then fixed a wire cup in the tree, in which he quickly built another open nest. On October 11th, the female

inspected this second nest, and, to the unspeakable joy of the male, accepted it as satisfactory, and forthwith seated herself inside. Instantly they set to work building a covering, the male bringing the materials and helping from the outside, the female working inside—the first work she had performed. This appeared to be her special duty; and it would seem as if she had rejected the first nest because it chanced to be just under the curtain pole, not sufficient space remaining for the dome. This dome, which was completed the same evening, was merely open lattice-work of hay, by far the most open work for the dome of a real nest that I have ever beheld. The aperture, which offered no peculiarity, faced away from the window towards their ordinary cage. The bottom part of the nest was very bulky, being about three inches thick, and came considerably above the brim of the wire cup. It was constructed of hay and dry grasses, with some three or four feathers and scraps of moss and horsehair stuck in anywhere, but was lined with only the finest grass and hay. Three eggs were laid, and could be seen through the roof; they appeared to be white, but the light was very bad. A hasty glance I had of one a little later revealed a narrow circlet of reddish-brown spots around the larger end. The courting postures of the male were pretty; with head down, and wings quivering and usually drooping, he would *ya-ya* at the female, for I never heard this male really sing; nevertheless as the song of the Little Finch is a “little” song and I was at that time unacquainted with it, it is possible, tho’ unlikely, that it may have been uttered and overlooked amongst the twitterings of the other birds. But the prettiest courting figure was when the male’s two wings, back to back and nearly touching, were pointed and fully extended straight upwards. The two birds played with the nest for some time, and it was not until October 24th, when the female commenced to sit, that I knew there were eggs.

The course of nesting, however, was not destined to run smoothly, for the male was going wrong, and on the 26th developed an alarming bronchial attack. On the afternoon of that day I saw him throw himself madly into the nest; and up till midnight, when I went to bed, his painful breathing told he was still there. Practically all that I could do for him was to increase the temperature of the room. In the morning all was still as death. I went straight to the nest, but the body was not there. The female dropped from the nest (about four feet from the floor) like a stone, and fluttered off shamming injury, just as

a sitting Willow Wren, when frightened from the nest, will occasionally do. The body of the male I found some ten feet away in a dark corner. The female continued to sit, but very loosely. The eggs commenced to hatch out on the afternoon of 4th November; on the following morning I found one on the floor, some distance from the nest; it had been partially opened, and a lusty leg was kicking out of the aperture. With more zeal than discretion, I rushed with it to the nest, and popped it in. The mother, amazed at such an unwonted invasion of the sacred precincts, hovered in the air close to me in a very pretty way; I have seen a humming-bird moth hover in the air in a very similar manner. There were then two young birds in the nest, but the rejected egg and its inmate I never saw again. Possibly if I had removed the shell a little more, or entirely if practicable, the young one might have been saved. Or did the mother deliberately reject it, feeling that the two young would be as many as she could rear unaided!

For a few days matters progressed favourably; and then I noticed that, owing to the body of the nest being too bulky for the wire cup, the weight of the mother sitting in the aperture whilst feeding the young was causing it to slide over the edge. Three times I moved it back into position; but, on the afternoon of November 15th, both youngsters were on the floor, one moderately lively and the other apparently dead. Taking them in the hollow of my hands, I rushed to the nearest fire and gave them a good warming. Returning to the room, I removed the nest from its untrustworthy support and planted it on the top of a heap of sand in the bird's old cage in which the food and water were always placed, depositing the two birds in it, the younger still almost lifeless. This was a mistaken move in many ways; but in the hurry of the moment I could not lay my hands on anything suitable in which to safely fix the nest in the tree. It was foggy and dark; and lamps are a poor substitute for daylight; the young were in a strange place, and "on the ground" (a little over three feet above the level of the floor)—and at first the mother wouldn't, perhaps later she couldn't, feed them. Until very late I saw her hovering about; she went up to the nest at least on one occasion, but no open mouth received her, and she eventually disappeared, but with a sore heart. I knew the young could hardly live without food until the morning, so, chewing up some sponge cake and egg, I commenced feeding them with a fine paint brush.

Those of our readers who are accustomed to the sight of

the lusty young of our shrubberies and hedgerows, or even of the Canary, will have very mistaken ideas of the size, or rather lack of it, of the young of some of these small foreign birds. The following does not greatly over-represent the state of affairs. Imagine two tiny beads, one tinier — no, that is impossible — one less tiny than the other, joined together by an absurdly long fine thread. In my case these were stretched out quite straight along the bottom of the (according to our ideas) much-too-large nest, very like a duck as one sees it sometimes laid out straight on the slab of a poulterer's shop. The two beads with the connecting filament have the appearance of being as lifeless as the duck, nay much more so; and yet the three constitute the young bird. The mother goes to the side of the nest and whispers "tsit" "tsit." Suddenly the tiniest of the two beads wriggles up like the ghost of a red worm (not the garden worm, but the wavy thread supplied by some to the smallest fish), an imperceptible opening like the eye of a needle appears for a moment on the far side of the bead, and the whole affair instantly collapses into the poulterer's duck. It is during this moment that the mother gives a peck—nothing more so far as the eye can see. I noticed repeatedly that, after taking food, she would fly to the nest and give five or six pecks. There would not be any external sign that she obtained the food from the crop, but I suppose it must have been so. Perhaps an atom of food was obtained from the crop with each action that developed into the peck. And it was a couple of pairs of these filament-joined beads that I found fathered upon me on the night of that 15th day of November, 1899.

The heavy fall, the exposure to the cold, the protracted fast, had brought them into a state of helpless collapse. With difficulty I aroused the strongest, and managed to give it a morsel of food. It was so weak, and opened its mouth so uncertainly and feebly, that I had the greatest difficulty in dabbing in the brush with the speck of food at the tip. But the little chap picked up wonderfully; and after a while I managed also to give a little food to the weakling,—and thus I fed them steadily up till midnight, when they became stupid with sleep, and I left them to their rest. The next morning was less foggy, and I kept quite away from the nest; and from outside the room I had the satisfaction of hearing that at least one young bird was alive and being fed.

At 11.30 on November 18th, the strongest left the nest and fluttered down on to the floor and scuttled about, but I replaced it in the nest. A little later both of them fluttered round the

cage. An hour or so afterwards both had returned to the nest, which they did not leave again that day. I should state that the mother never brooded them after the fall from the tree; where she slept at night I do not know. I should also say that all the time the nest was kept scrupulously clean, the excreta being carried to a distance by the mother. On the morning of the 19th both were on the floor, and I could not induce the weakling to remain in the nest. The stronger bird got into another eucalyptus tree close to the window, but the other passed the night just below, on the floor, to the grief of the mother, who as late as 9.20 was visiting it in evident anxiety as to its welfare. It was quite unfit to leave the nest, but, what with a foggy evening and the fear of making matters worse by frightening the other youngster from its perch, I did not dare to interfere. Little by little the elder bird worked its way upwards, and on the 21st was snugly hidden in a tuft of leaves at the top of the tree. The same day the little one got on to the lowest bough, but soon fell, and was not able to get up again until the evening. On the 22nd it worked its way up to its brother, the two remaining about three inches apart. On the 23rd, both were hopping about the lower boughs. On the 24th, the weakling was dead. It had had a severe blow on the head, doubtless the result of one of its many falls while endeavouring to get into the tree. At the time I attributed the death to this blow, but later I concluded that it had died from the effects of the cold draught from the window.

Both mother and survivor were singularly dull and quiet that day, as if they were really mourning for the little dead fledgeling. The body had been carried away to the same dark corner; and I am convinced that the bodies of both father and child had been conveyed thither by the poor little widow.

The dead young one was very juvenile;—upper mandible dark brown, under lighter, with the usual yellow gape of a young bird. Top of head generally, brown; upper parts brown tinged with yellowish; throat, fore-neck, and upper chest, dark brown with faint tinge of yellowish; breast and under parts more dull; under tail-coverts almost inclined to rufous; tail just beginning to peep through; legs and toes, flesh colour, the centre front toe being remarkably long compared with the others; flights brown with yellowish outer edges.

While examining the toes of this dead bird, I was much struck with the extraordinary sharpness of the claws, which quite clung to my finger when touched; but I failed to detect any trace of anything of the nature of a hooklet. Such excep-

tional sharpness, which probably would not last long, would be of immense assistance to a brancher in holding on to its perch.

On November 26th, the survivor commenced pecking at food, and on the 27th was flying about a good deal, with quite a respectable tail. By December 8th, it was quite independent, the mother having ceased to feed, and keeping quite out of the way. It could now hardly be distinguished from her, except by its more open tail; but a closer examination of the face would have betrayed the difference.

The young bird spent much of its time in a eucalyptus tree in the bay window, quite in the front; and I, with great dulness of perception, failed to perceive the danger. I found afterwards that, during the cold and frosty weather, there was a great draught in this place; and, as might and should have been foreseen, the poor little thing was soon laid up with inflammation, and died on the 17th. I grieved much over its death. Its life had been so short. What good had it done in the world, and why had it lived at all! But truly it had not lived its little life in vain, for it taught me a lesson of sympathy—sympathy with the many who mourned for their beloved ones that black winter of 1899—1900.

The following are my notes of this second bird taken shortly after death. Total length a little under 4 inches, the tail being $1\frac{1}{4}$ inch; upper mandible and tip of lower, dark brown; rest of lower mandible, dull yellow; all upper parts dark brown tinged with yellowish; two central feathers of tail darker than the others. Under parts lighter brown, inclined almost to whitish down centre of abdomen. Feet and legs, dark flesh colour; hind and central front toes very long, the other two being very short. First primary nearly, perhaps quite, as long as the third, the second being the longest, and without outer web; along the next four or five primaries, the outer web extended for about two-thirds from the base. There were not any signs of yellow or black on face or chest after death, but previously there had seemed to be lines of lighter where the yellow would be, and a trace of the dark cloud of the male on the chest.

It was on the 8th December that I first heard with certainty the "song" of this species. In the quiet of the evening, by artificial light, male No. 1 repeated his little song without intermission for quite a considerable time. Afterwards, by day and by night, sometimes for hours at a time, his quaint little rippling carol could easily be distinguished amidst the musical

babel of his companions. On 27th December, male No. 3 commenced; but he never sang so freely and perseveringly as his rival. The song would commence with a kind of rippling "tsit" or twitter for, say, a bar, and this bar, as a rule, would be repeated three, four, or five times; and then there would come a kind of prolonged sigh, which reminded me of the "hiss" which closes the vocal efforts of the Orange Bishop. Usually a little twittering flourish or other ornament would follow the sigh; and in several details the song would be occasionally varied.

If I may venture to judge by my own specimens, the Little is somewhat longer and slimmer than the Cuba Finch, and more active and energetic. In a good light it will be observed that the male—when in full colour and good condition—is a very striking bird, the contrast between the deep bright black of the face and the rich brilliant orange-yellow of the face and throat being remarkable. The female is pleasing but plain, much plainer than the female Cuba Finch. She often bustles and flicks her wings about like the Hedge Accentor. I have not observed a male do this; but possibly not one of mine, when at liberty, was in equal vigour and strength. Judging by her movements, the wild bird on the feed hunts about in long grass, etc., for various seeds and diminutive insect life, keeping tolerably near the ground. My Little Finches fed on the usual seeds, of which canary was perhaps the favourite. A little soft food was occasionally supplied, to which moistened breadcrumb was added while the young were being fed.

Whilst incubating, the female tubbed regularly—a very important point in a dry room.

These birds never cuddle together, at roosting or any other time.

The male Little Finch, in his second feather (as I suppose mine to have been) is a brown bird faintly washed with yellow; but presumably he becomes less brown as he grows older for, according to the Museum Catalogue, the body colour is green—which my birds were not. But my most fully developed bird—before he went wrong—had the upper parts strongly tinged with yellow, the outer aspects of many of the wing coverts and flights being almost bright yellow. A broad bright-yellow band (much broader fore than aft) runs over and behind each eye, and is connected in front by a very narrow yellow line. Eyelids yellow, and a small yellow spot immediately below the eye. A black spot in front of eye; and nearly all the face below the eye up to base of lower mandible black or blackish. Front and top

of head darker than body and more distinctly brown. Throat and under parts as given below. Thus Nos. 2 and 3, but No. 1 who lived the longest somewhat different, although he had not gone through another moult that I am aware of; but unfortunately the head had been badly pecked, so that some points were doubtful. The narrow yellow connecting line across the base of the forehead was not apparent. All the fore part of the head, extending well up to the crown, was black, and this black entirely surrounded the base of the bill, and, reaching downwards, enveloped the orange throat patch, and spread over the fore-neck and chest, but faded away towards the abdomen, which, with the underparts generally, was of a light ash colour. Some of the black about the face was very deep and bright,—but it became more dull and sooty on and below the breast. The chin patch was of a very brilliant orange, or orange yellow, slightly but distinctly projecting downwards at each lower corner, like whiskers when the chin is shaven. Thus all the living and the dead in the flesh, but not apparent in the preserved skins.

My female at this time was a neat, dapper little bird, very lively and active as a rule, apparently of a plain brown colour; but when in the sun it was seen that the upper parts of the body were faintly washed with yellow. Faint watery-yellow or whitish superciliary streaks might be detected; but I failed to perceive any clear trace of the yellow chin spot. On the other hand, sometime during February I noticed, what I had not noticed earlier, a faint cloud of dark brown on the lower throat. This is not referred to in the Catalogue; but it seems to point to the females of the Little and Olive Finches being very like one another.

Irides in both sexes, darkish brown.

(*To be continued*).

THE COLLARED JAY-THRUSH.

(*Garrulax picticollis*.)

By A. C. BUTLER, Ph.D.

This bird is a native of China, and was described by the late Consul R. Swinhoe, in the Proceedings of the Zoological Society for 1872. He obtained the species in the mountainous region of the province of Che-Kiang (Ningpo), and on examining the stomach found that it contained smooth caterpillars, grasshoppers, seeds, and pulp of fig-like berries.

In 1873, the first specimen was received by the London Zoological Gardens from the Jardin d' Acclimatation of Paris, and Dr. Sclater mentioned that it was the first living example that he had ever seen. In 1893, the Berlin Gardens secured it; yet in 1899 Dr. Russ (in his latest published work) spoke of it as follows: "It must be reckoned as altogether one of the very rarest imported foreign birds living in our possession." In England, however, as I understand, the bird has of late years been imported more frequently, and, although not an abundant bird in the market, can hardly be considered very rare.

As a rule the species of *Garrulax* appear to be gregarious, feeding mostly on the ground and inhabiting bamboo-jungle or brushwood; they nest at no great height from the ground, forming a structure of woody tendrils, twigs, fibre, grass, or leaves, and lay greenish or bluish eggs. The notes of most are harsh and chattering, though they utter also clear flute-like notes, which from their rapid repetition and monotony are sometimes still more irritating; indeed, Mr. Fulljames informed me that a specimen of the present species, and another which he kept out of doors, proved such a nuisance to the neighbours that he gave them to the Zoological Society.

The Collared Jay-Thrush is rather a striking bird to look at, the upper surface being sandy brown; the eyebrow-stripe, a stripe at the side of the head, the cheeks, ear-coverts and throat, white; a black streak behind the eyes; sides of the head bordered behind with grey; nape, bright reddish brown; sides of the neck black, forming a nearly complete belt across the breast; flights dark brown; tail brown, the middle feathers uniform, the outer ones with a black belt; under parts mostly yellowish brown.

This is a rather large bird, about equal in size to the Blue-bearded Jay, but with a long and somewhat curved bill. The feet are leaden grey with paler claws; the bill is blue-black; the lower mandible largely horn-coloured; the eyelid is edged with blackish, and the iris is chestnut.

The above description is somewhat brief, and perhaps hardly gives an idea of this quaint looking bird, with his black-bordered white face and throat and sandy-brown back and belly.

I purchased a specimen on January 26th of the present year, and was unhappily only able to accommodate it with a cage of about two feet cubic measure. I feed it upon my regular mixture—two parts crumb of household bread, one part boiled potato passed through a masher, one part yolk of egg, one part

ants' eggs, and a little Abrahams' food; also once or twice a week chopped raw beef, and each day part of an orange or a few grapes; also cockroaches, and occasionally a mealworm or two.

Whenever it gets hungry, this bird utters a harsh note something like *Werk*, repeated with a short interval four or five times; then he begins a most irritating, rapidly-repeated, staccato whistle. When happy, he sometimes sings a quaint, chattering sort of song, which certainly has no claim to be called melodious.

Not being a song-bird, being intensely dirty, voracious, and very fond of pulling out its perches and then hopping frantically from floor to wires, calling for them to be re-placed after they have been coated with filth, I can hardly recommend this as a pleasing cage-bird, moreover, in a small area it loses the feathers from the flanks, and is never really presentable; but, I should think, if confined in a six foot flight, the Collared Jay-Thrush might prove a rather interesting pet.

I have tried this bird with small mice, and he ate the first one, holding it under his foot and tearing it to pieces, but he would not touch another; I also gave him for some weeks, chopped-up apple on the top of his soft food, but this and the egg from his food is all thrown out and wasted; yet, no doubt, he would eat Sparrow's eggs.

ODD NOTES ON MY BIRDS.

By D. SETH-SMITH, F.Z.S.

Our esteemed Editor has asked me to send him something for the July number of the Magazine, as some expected contributions are not forthcoming. Perhaps a short account of the doings of some of my birds, since the beginning of the year up to the present time, may be of some slight interest to a few members.

My Chinese Painted Quails have commenced breeding decidedly early this year, and promise to add considerably to the population of the aviary. I turned a pair into the outer part of one of my aviaries, where there is plenty of cover in the form of grass and shrubs, about the middle of April. On May 19th, I noticed that for the first time the cock was alone and the hen nowhere to be seen, so suspected a nest, which I soon discovered under a tuft of coarse grass close to the aviary door. The clutch

consisted of seven eggs, five of which hatched out on June 5th, the other two being added. As I write (June 16th), these chicks are doing well; their quill feathers have grown, and they can fly. Last year the first brood was not hatched until August 1st, and even then a second brood was hatched and reared in September, so that if all goes well I shall not be surprised if this pair hatch one or two broods more this year.

On the 11th of April last, I received a cock and four hens of the Australian form of the Painted Quail, the so-called Island Painted Quail (*Excalfactoria lineater*). It is a slightly smaller bird than the typical *E. chinensis*, is darker in colour, and the *tarsi* are apparently somewhat shorter. It is probably only entitled to sub-specific distinction. I put a pair of these in the second part of the aviary about May 1st, and in a very short time the hen commenced to lay in a corner, under some fagots. Here she sat steadily and well, and on June 13th hatched out three chicks, which are now doing well. They are decidedly darker in colour than the young Chinese birds, and appear in fact almost black. I supply each brood of young Quails with an ant's nest or two every morning, so they have abundance of insect food.

Of Parrakeets I have at present three species of *Psephoti* (*P. multicolor*, *P. hæmatonotus*, and *P. hæmatorrhous*), a Musky Lorikeet, and a specimen of the rare Yellow-fronted Parrakeet (*Brologerys tuipara*); as well as a pair of Cockatiels and some Budgerigars. The Redrumps have at present two youngsters, able to shift for themselves (both hens), and the hen is sitting again. The Many-colours seem inclined to breed, but have not started laying as yet. Three young Cockatiels are out of the nest, and their parents are sitting again. The only drawback about Budgerigars is their excessive prolificacy. I started this season with two pairs and now have nineteen birds, the last two nests producing seven and five respectively.

Diamond Doves have not done so well as usual with me so far this season. I lost my old hen in January last, and have to rely upon a young hen I bred last year to keep up a stock of these most charming Doves, in my aviary. She has, I believe, two newly hatched youngsters at the present time.

I have one or two young Crimson-finches (*Neochmia phaeton*) in the nest, but whether they will be reared or not is most uncertain; my pair had several nests last year, but failed to rear any young.

There are also broods of Long-tailed Grassfinches, Parson-finches, and several common things about; but it is still early for many of the more delicate foreigners to breed. I have noticed my hen White-throated finch (*Spermophila albigularis*) carrying about building material lately, so she may possibly nest this year. The cocks of this species generally seem ready to breed, but the hens are very reluctant to go to nest.

A pair of Black-headed Buntings (*Emberiza melanocephala*) have built a nest, or rather the hen has, composed entirely of living grass (although there was plenty of dry hay about the place). She is now sitting well, and I only hope I may succeed in rearing the young, but I fear that unless I can supply insects in abundance, I shall have a poor chance of doing so. Just before the hen commenced to lay, I frequently heard the cock utter his little song quite late at night, in fact often between eleven and twelve o'clock; curiously enough he was often answered by a crow from the Australian Painted Quail.

Just before the young Quails were hatched, I thought it advisable to shut up my pair of Sacred Kingfishers in case they might consider the young Quails a dainty morsel for a meal. The day following, the largest, but least brilliantly coloured of the two, laid an egg on the floor of their compartment. It is pure white, more or less transparent, conical in shape, and measures 1.15 by .85 in. I had often seen this bird go in and out of a log nest, so that perhaps had I not shut the pair up they might have bred.

I caught a pair of Chaffinches early in 1899, which this spring have had two nests. Each time young have been hatched, but have only lived a few days. It seems almost impossible to supply enough insect food to enable these birds to rear their young.

A pair of Bullfinches, caught in December last, have also had a nest but failed to rear the young. Bullfinches, I believe, feed their young at first entirely upon insects, and I was unable to supply mine with enough, although there was always a liberal supply of soft food, composed mainly of egg, crissal, and preserved ants' eggs, at their disposal.

I hope others may follow my example, and let us have accounts, however short, of the doings in their aviaries.

ZOO NOTES.

By J. LEWIS BONHOTE.

IX.—MAY.

May 1	2 Violet-necked Lorics— <i>Eos riciniata</i> Moluccas.	Parrot House.
	2 Amherst's Pheasants— <i>Thaumalea amherstiae</i> China.	Pheasantry.
	2 Siamese Pheasants— <i>Euplocamus praelatus</i> Siam.	"
	2 Rufous-tailed Pheasants— <i>Euplocamus erythrophthalmus</i> Malacca.	"
" 3	1 Lesser Sulphur-crested Cockatoo— <i>Cacatua sulphurea</i> Moluccas.	Parrot House.
	2 Australian Rails— <i>Rallus pectoralis</i> Australia.	Western Aviary.
" 7	4 Australian Sheldrakes— <i>Tadorna tadornoides</i> Australia.	Duck Ponds.
	1 Sclater's Cassowary— <i>Casuarus sclateri</i> Brit. New Guinea.	Ostrich House.
" 8	4 Indian Starlings— <i>Sturnus menzbieri</i> India.	Western Aviary.
" 9	2 Meyer's Parrots— <i>Pseocephalus meyeri</i> S. Africa.	Parrot House.
" 10	2 Cardinal Eclectus— <i>Eclectus cardinalis</i> Moluccas.	"
	1 White-crested Tiger Bittern— <i>Tigriusoma leucolophum</i> W. Africa.	Eastern Aviary.
	5 Sordid Wood Swallows— <i>Artamus sordidus</i> Australia.	Western Aviary.
	6 Sulphury Tyrants— <i>Pitangus sulphuratus</i> S. America.	Parrot House.
	4 Chaplain Crows— <i>Corvus capellanus</i> S. Persia.	Crows' Cages.
	2 Porto-Rico Pigeons— <i>Columba squamosa</i> W. Indies.	Western Aviary.
" 14	4 Blood-rumped Parrakeets— <i>Psephotus hæmatonotus</i> Australia.	Parrot House.
" 15	1 Allen's Porphyrio— <i>Hydrornia alleni</i> Captured at Sea.	Western Aviary.
" 16	1 Snowy Owl— <i>Nyctea scandiaca</i> Bylott Isles.	North. Aviary.
	2 African Tantalus— <i>Pseudotantalus ibis</i> W. Africa.	Eastern Aviary.
	2 Black and White Geese— <i>Anseranas semipalmata</i> Australia.	Duck Ponds.
	2 Plumed Gourd-Doves— <i>Geophaps plumifera</i> Australia.	"
	2 Crested Pigeons— <i>Ocyphaps lophotes</i> Australia.	"
	2 Rose Hill Parrakeets— <i>Platyercus eximius</i> Australia.	Parrot House.
" 19	2 Long-eared Owls— <i>Asio otus</i> —British Isles.	North. Aviary.
	2 Senegal Touracous— <i>Turacus persa</i> W. Africa.	Western Aviary.

The arrivals this month, which are fairly numerous, contain two species new to the collection, viz. : four Indian Starlings and five Sordid Wood Swallows. I am sorry to say that I have been unable to get to the Gardens this month, and am therefore unable to give any notes on the new arrivals, but the other specimens which would be worth a visit are the Tiger Bittern, Black and White Geese, and the Touracous; the last named I dealt with a few months ago, but the Black and White Geese deserve some special mention. They are chiefly remarkable for the formation of their feet, which are only partially webbed. The front toes have only a small web at their base, while the hind toe, which is long and rises from the same level as the other toes, bears a large claw. As might be expected from such a structure, these birds perch freely on trees, and but seldom take to the water. Their plumage is black and white, and their beak, which is slightly hooked, carries at its base a large warty prominence. This aberrant bird has yet one more point of divergence. The windpipe is coiled back on itself as in the swan; but whereas in the last named it is coiled within the sternum or breast-bone, in this species it lies pressed against the side. It is the only species of its genus, and is not uncommon where it occurs.

A slight error in my last month's notes has been pointed out to me when I referred to the Hybrid Herring Gulls as being free breeders in private aviaries. Gulls as a rule are free breeders in captivity, but I believe the Hybrid mentioned has only been bred at the Gardens, where the same pair have nested for several years.

USEFUL MEMS. FOR AVICULTURISTS.

By The Rev. C. D. FARRAR.

1. Never leave a can *full of water* about in the aviary. You may go out and forget all about it; but some inquisitive birds won't, and next time you come for the can there will be an inquest.

2. A "net" is a useful, nay a necessary part of the bird-room furniture; but do not leave it propped up against the wall. If you do, I will venture to say that some fine day you will find the bird you least wanted to lose, dead inside it. Take the net out when you go, and only bring it back when needed.

3. Do not leave a *small hole* open between the aviaries; if so, the insectivorous bird out of one will get into the seed

eater's compartment, and *vice versâ*, and again there will be lamentation and mourning. It is wonderful, but at the same time exasperating, to find how small a hole will do the deed.

4. Provide for the mice periodically. They *will* come. Traps are little good. Provide a delicate repast of bread liberally buttered, and with some Batty's vermin killer on the top. Put the bread and butter in a small box cage, securely fasten it down with your wife's best bonnet pin, and in the morning the mice will be like Sennacherib's army—all dead corpses.

CORRESPONDENCE.

A PROPOSAL TO EXTEND THE SCOPE OF THE MAGAZINE.

SIR,—You have published five letters commenting on my proposal, and the authors of four of them are strongly adverse to it. I am not discouraged by this reception of my suggestions, because I expected it. The Magazine in its present form is fairly satisfactory to our present circle of readers. The object of the proposed alterations is to extend that circle by adding to it many whom it fails to interest at present. If the members prefer a small Magazine with a still smaller circulation, let us continue rigidly on the present lines—personally I dislike stagnation, and it having been proved that the Magazine cannot be much extended with its existing circulation, and that the circulation cannot be increased while the subject-matter remains so restricted, I urge the expediency of endeavouring to overcome the strong antipathy which some of us appear to feel for all living forms except “foreign and British Birds,” and to open our pages to the discussion of (a) (1) rare mammals, reptiles, and fishes, and (2) Canaries.

All my critics, except Mr. Phillipps, confuse my two proposals strangely. There seems to me a good deal of difference between rare mammals, etc. on the one hand and Canaries on the other, and I expected that some would bless one proposal and condemn the other. But no—it matters nothing to the ladies and gentlemen whether a creature be fish, flesh, or fowl—so long as it is not a “foreign or British bird” they will have none of it. I can't help feeling that some of us are rather narrow, and wanting in sympathy with hobbies which differ very little from our own.

Dr. Butler's letter consists of prophecies, and is not wanting in that positiveness which is a characteristic of prophetic literature. Nothing but a trial of my proposals can prove or disprove his predictions. In the

(a) To my mind the chief objection to the first of Mr. Fillmer's proposals is that we should have to change the name of our Magazine, which would be a very great pity. I am perfectly sure there are a great many aviculturists, who have never heard of the Magazine, who will join us when they do hear, which they will do when the paper is properly advertised, as I hope it will be before long.

The admission of Canaries I most strongly object to for several reasons: it would be the thin end of the wedge which would admit all other “fancy” rubbish; it would cause all our most scientific members to leave the Society in disgust; whereas our chief aim should be to make our paper more worthy of their support. We should be on the high road to turning our Magazine into a common “fancy” paper.—D. S.-S.

meantime, as they rest solely on his personal opinion, which happens to be directly contrary to my own, I refuse to believe them.

Mr. Phillipps' letter is worthy of more serious attention, but I cannot admit that mammals, reptiles, and fishes are sufficiently provided for in the weekly papers he mentions and in the *Zoologist*. As for the weeklies, they stand in the same position to mammals, etc. as the *Feathered World* does to birds—while the *Zoologist* approaches the subject exclusively on its scientific side, which we should *not* do. Mr. Phillipps fears that Canaries would swamp the foreign birds—I believe his fears to be groundless, but it is merely a matter of opinion and belief, and from its nature incapable of proof except by experiment.

I well remember that when it was proposed to extend the U. K. Foreign Cage Bird Society to British Birds the idea was strongly opposed and consequently abandoned. I do not think that the interests of foreign birds have suffered through the inclusion of British birds in the Avicultural Society, and I believe they would be equally uninjured by the inclusion of Canaries.

HORATIO R. FILMER.

ACCIDENT TO SHÂMA.

SIR,—I send you the following account of an accident to my Shâma, thinking it might possibly be of interest should any bird belonging to our members meet with a similar mishap.

My cock Shâma, "Phil," (about whom I wrote a short paper in the June number, 1899) was turned into the outdoor aviary, for the summer months, towards the end of May. He was placed with the hen bird in a large cage, broad and high, and about five feet long. A wire partition divided the cage in half, and I left it in temporarily so that the birds might get used to each other before I let them fly together. I put up a nest box among some fir branches in one corner of the cage, for as both birds are very tame indeed I hoped they might be induced to nest. Phil seemed much more inclined to be friendly with the hen than on their first introduction, and would sometimes sit and sing to her.

One morning, when he had been about four days in the aviary, he was discovered to have seriously injured his right leg, which was hanging quite useless. My man told me the bird was all right the first thing in the morning, and when he came to the aviary an hour or two later, the accident had happened. The bird's nails were not long, and there were no wires he would be likely to catch in, so we were at a loss to account for the cause. We took all the perches from the cage, and, after lining it with a thick bed of hay, placed poor Phil inside, and carried him indoors. He was evidently in great pain and refused to eat, though he once bravely tried to sing a little.

After a few hours, as he was no better, we called in Mr. Browne, a veterinary surgeon, who very gently examined the hurt and pronounced it a broken leg. As the fracture was quite close to the body it was impossible to set it, and he advised it should be amputated. There seemed small chance of keeping so active a bird quiet on the chance of it setting naturally, and Mr. Browne assured me that if the leg remained on: there would be less chance of Phil's survival, and, besides, he would suffer great agony every time he moved. I reluctantly agreed to the operation, and

Phil was carried down to the surgery, where he was given a very little chloroform, and his injured leg very skilfully removed with a sharp pair of scissors. The wound was then dressed, and, after being kept quiet and without food for some hours, he was sent home.

It is now about ten days since the accident, and Phil is as lively as ever. He learnt to balance himself splendidly on his perch the same day as the operation took place, for though we kept the hay in the cage he refused to go down to it. Mr. Browne feared the shock might kill the bird rather than the operation, so the garden was searched for dainties to tempt him to eat: aphides, beetles, and anything else we could find, being collected for the small invalid. I think this greatly helped to keep up his strength; but I should add that for some time he has had phosphate of iron in his drinking water daily, and is now in splendid health and feather.

Phil sings all day, and makes the best of his misfortune. He essentially loves human beings more than his own species, and delights to be talked to and petted: so as he is to stay in the house now, and not go into the aviary again, he is likely to get more than his share of attention.

R. ALDERSON.

CAGE-BIRDS IN CALCUTTA.

SIR,—Having regard to the difficulty of procuring choice cage-birds in South America, complained of by those who have recently visited parts of that Continent, and given us their interesting experiences in the *Avicultural Magazine*, I thought I might well draw attention to the fact that here, in Calcutta, there is no difficulty in getting good birds if an order be given.

In the Bird Bazaar can constantly be found, as one would expect, the best-known Indian cage-birds: such as various kinds of Mynahs, Bulbuls, Parrots, Weavers, Mannikins, Waxbills, Shâmas, and Dhyals; together with, generally, Green Bulbuls and Liothrix. By watching the market, however, or still better by visiting the establishment of Mr. W. Rutledge, Eutally, who has long been our best-known and most extensive dealer, one may obtain very good things indeed, such as have rarely or never been sent to England as yet—I mean such birds as the Blue-winged Green Bulbul (*Chloropsis hardwickii*), Silver-eared Mesia (*Mesia argentauris*), Blue-winged Siva (*Siva cyanuroptera*), White-capped Redstart (*Chimarrhornis leucocephala*), Black-crested Yellow Bulbul (*Otocompsa flaviventris*), Bengal Pitta (*Pitta brachyura*), Minivet (*Pericrocotus brevirostris*), Niltava Flycatcher (*Niltava suntara*), Verditer Flycatcher (*Stoparola melanops*), Maroon Oriole (*Oriolus traillii*), with many other good “soft-bills.” Finches are few as yet, but the Himalayan Goldfinch (*Carduelis caniceps*), and Siskin (*Hyppacanthis spinoides*), are now to be had in unusual numbers.

Parrots have been imported into India since the time of Jehanghir, the native species not satisfying Indian fanciers completely. And it may interest some members to hear that Forsten’s Lorikeet is the commonest Lory imported, and has bred in the Calcutta Zoo. There is often a very good assortment of Parrots, but not being specially interested in these birds I cannot say much about them. But many Parrot fanciers would have been delighted with a specimen of one of the rare Black Lories (*Chalcopsittacus*) which was on view some time back, and was literally as tame as a kitten.

At the present moment, several specimens of both the Great and Lesser Birds of Paradise (*Paradisea afuda* and *P. minor*) are on sale in Calcutta, and Mr. Rutledge once had as many as four *species* in his establishment together.

He tells me that it is no longer worth while for him to get down specimens of the rare soft-bills I have mentioned above from up country, as purchasers now are so few, so that there is every chance of this branch of the trade dying out, as I doubt whether the ordinary Bazaar dealers can keep it going; at any rate, they have had to sell off this year at much reduced prices. So that if people really want good soft-bills from India, they should bestir themselves, and give Mr. Rutledge orders while the trade is in hand. I have every confidence in recommending him, and am giving him, without his knowledge, this advertisement in the interest of the cage-bird fancy at large.

If this recommendation of a dealer is regarded as an ordinary advertisement, I shall be willing to pay for it as such.

Indian Museum Calcutta.

F. FINN.

EYE DISEASE IN GREY SINGING FINCHES.

SIR,—I shall be very grateful for advice how to acclimatize Grey Singing Finches. Last year I had two pairs from different dealers, and all died, apparently from the same disease. The first symptom of anything amiss is the swelling of one eye, which gradually extends until the whole head is enlarged, death then resulting. I have just bought another pair, only four days ago. The hen is showing symptoms of the ailment which carried off the others, and I am anxious to hear of any treatment likely to check the disease.

I should like also to ask what is desirable to be done in the following case. A cock Long-tailed Grassfinch has the lower half of beak longer than the upper. Would this interfere with it cracking its seed properly. If so, should it be cut down to meet the upper half of beak. In the hen the two halves fit exactly, which makes me think that the long upper half in the cock is abnormal.

Asking your forgiveness for so much detail.

M. HUSBAND.

The following reply was sent to Miss Husband :

From the fact that five examples purchased in succession have suffered from the same disease, I have little doubt that the cause exists in the cage to which the birds are consigned.

The eye disease is probably due to a bacillus; but, until microscopic sections of the brain have been carefully studied by some specialist, we are not likely to learn much about it. From the fact that it is often associated with brain paralysis or "staggers" in birds, I am inclined to believe that both troubles are due to the same cause.

I never knew a Grey Singing-finch to be thus affected, but it is common enough amongst Zebra- and Gouldian-finches, Canaries, and Skylarks.

When I first receive Grey Singing-finches (of which I purchase all

that are offered at a reasonable price), I turn them into a large box-cage with two rows of graded perches rising as in an orchestra from front to back ; so that, even if unable to fly, they can get well away from the floor to roost. As soon as they are perfect in plumage, I turn them into large aviaries.

If I were you I should thoroughly scald or bake the cage, and syringe it well with Condy's fluid before putting any more birds into it.

A. G. BUTLER.

PILEATED FINCH WITH BALD PATCHES.

SIR,—I should be very glad if you would kindly advise me as to the treatment of a hen Pileated-finch.

I have had her just two years, and during nearly the whole of that time she has suffered from bare patches on each wing joint. Her feathers, though abundant, are rather poor in quality, and sometimes her wings tremble as if from weakness. During last winter I have caged her, and given her phosphate of iron in the water, and also several mealworms daily. At first a few quills grew, but lately they seem to have stopped growing. I cannot say she seems ill (for she is usually very bright and active) only delicate. I do not think either of the bare places have altered in size since I first noticed them.

Will you kindly tell me what the bird is suffering from ; if there is any cure ; and if any danger of infection to the other birds if allowed to fly amongst them.

R. ALDERSON.

The following reply has been sent to Miss Alderson :

Feather-weakness in birds, known amongst Pigeon-fanciers as soft moult, is probably due to an insufficiency of lime and phosphates in the system. Plenty of cuttle-fish bone, mealworms, and phosphate of iron daily in the drinking water, should gradually put the bird right.

Do not stint green food, if the bird will eat it. Chickweed is generally a favourite with the smaller finches.

I do not think there is the least likelihood of infection, unless indeed the loss of feathers is due to red mite ; but you would have discovered it before now if that had been the case.

One cause of feather-weakness is keeping birds too warm. My English Jay, being kept in a large conservatory, loses many of his soft feathers at the commencement of the warm weather, and only recovers them when the cooler season returns.

A. G. BUTLER.

TWO INDIAN STARLINGS.

SIR,—I now enclose two sketches : one of the bird which I mentioned before, and one of a bird which I have had for some time and which I thought was the Rose-coloured Pastor (No. 1). No. 2 is a much smaller bird than No. 1, and has quite a song though rather harsh ; but No. 1 does nothing but eat and fight, and is a most unsatisfactory bird in my opinion to keep, although they might be better outside, but I am

unfortunately not able to keep birds outside : so badly do I think of the birds that I shall get rid of them when possible.

When the crown feathers of No. 2 are raised, they give the bird a most uncanny look, which I am quite unable to produce on paper.

Do you know of any place in England where I could buy chenna (or grain flour) ? As you are aware, this is the main food used in India for soft-billed birds, and I find it most satisfactory, with the aid of a little fruit and a few insects. I have tried several places here, but Liverpool is a poor place for anything connected with birds : I am obliged to get mealworms from London, no one here keeps them in any quantity.

I would like to know if you think a few Fruit-suckers (Green) would pay to bring over, as I expect my birds to pay for their keep. I do not think there are many here.

H. C. HASELTON.

The following answer has been sent to Mr. Haselton :

The coloured sketch numbered Fig. 1, is a representation of the Rose-coloured Pastor (*Pastor roseus*) ; that numbered Fig. 2, is the Pagoda, or Brambling Starling (or Mynah), (*Sturnina pagodarum*).

I think Messrs. Prashkauer, of London, would be more likely than anyone to keep "chenna" ; but, in all probability, fine pea-flour would answer the purpose equally well.

The fruit-suckers always sell ; and as I understand that you can obtain them at Calcutta for about three shillings apiece at certain seasons, it ought to pay well to import them.

A. G. BUTLER.

"THE SPOTTED PANTHER BIRD."

SIR,—It has been pointed out to me that, apart from "Panther Bird" being a very unsuitable name for the species illustrated in last month's Magazine, it has been known for years in Australia as the "Diamond Bird," which certainly seems to me more appropriate. I do not know who invented the name "Panther Bird," but merely write this to suggest that members when referring to it in future should use the name Diamond Bird as being the one by which it is best known.

J. LEWIS BONHOTE.

Mr. Bonhote has asked me to explain my use of the name Panther-Bird in place of Diamond Bird. The species having only been once imported and the specimens having then been sent to Germany, I concluded that the use of the more appropriate name adopted by the Germans (*Panthervögel*) was far preferable to that used by Gould, at any rate for aviculturists. If an aviculturist were to write to an English or even a German dealer for a Diamond-bird, it is a hundred to one that a Spotted-sided finch (Diamond-Sparrow) or a Diamond Dove would be sent to him ; but with an illustrated article on the "Panther-bird" in a well-known Avicultural Magazine confusion would be almost impossible.

A. G. BUTLER.

HYBRIDS BETWEEN THE PARSON FINCH AND THE LONG-TAILED GRASSFINCH.

SIR,—It may be of interest to mention that hybrids between a male *Poephila cincta* and a female *P. acuticauda* have been reared in my garden this summer. The parents have been “nesting,” off and on, since last year; but I was slow in sacrificing the nesting of rarer birds in order to suit their convenience. One day this spring, in a reckless humour, I placed them in my best aviary, with the result, not unexpected, that valuable nests were destroyed. When I started for the Continent in the spring, I left them nesting; and on my return on June 13th, it was clear from the excitement of both parents that young were about somewhere; doubtless they were then branchers, but I did not see them. On the morning of June 18th they commenced to fly; and we had several good views of three of them. They were fairly strong on the wing, and were being most assiduously fed and waited upon by the mother, the father having temporarily disappeared; probably he is setting upon another batch of eggs.

The one young bird is a very fair Parson Finch, but the other two are less pronounced in their general colour. They all have the usual black flank-stripe and black chin; the tails are short and seem to be square (but I cannot vouch for this); and the bills of course are black or blackish. The chin spots, although well defined, seem to be very small.

I regret that I am unable to say whether any female or females among them show the distinctive sexual mark of the female Long-tailed Grassfinch.

REGINALD PHILLIPS.

AUSTRALIAN WOOD-SWALLOWS.

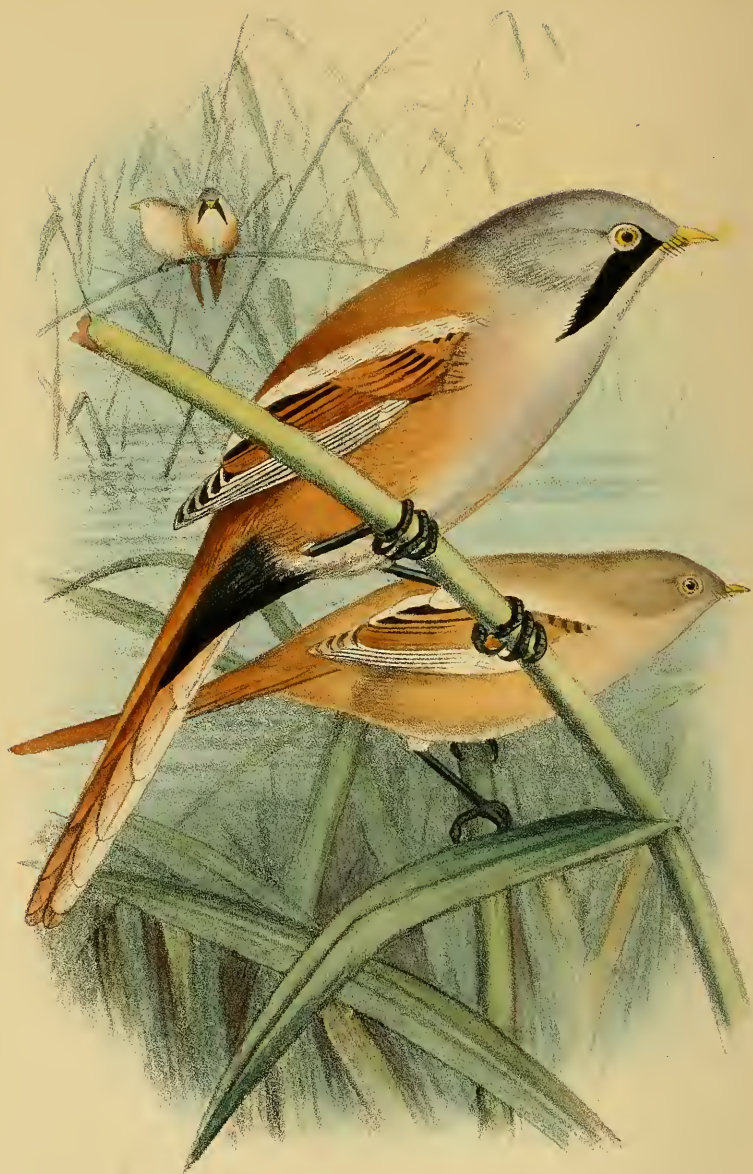
SIR,—I was much interested in Mr. Fulljames’ article in the May Magazine, and especially in the light which he throws on the early history of my own birds. Once again, the danger of generalising from observations of one or two examples of a species is instructively shewn. My birds never recovered from their early privations, never got into really good condition, and have always remained delicate—though it appears from Mr. Fulljames’ more extended experience that healthy specimens may be considered hardy. A few weeks ago I lost one of my Wood Swallows from that most common disease of caged insectivorous birds, paralysis, and I fear that the other is going the same way. Mine, like Mr. Fulljames’, never bathe.

HORATIO R. FILLMER.

PEAT MOSS LITTER.

SIR,—I consider this to be the most useful covering for the floor of an aviary in which soft-food birds are kept; but the form in which it is usually sold is too coarse and lumpy to be quite satisfactory for the purposes of the aviculturist. Some of your readers may therefore be glad to know that the Liverine Company, of Grimsby, have brought out a finely-ground peat, specially prepared for aviaries and poultry-houses. They sell it in small sacks at 1s. 6d. per sack, and it is, of course, considerably more expensive than common peat.

HORATIO R. FILLMER.



BEARDED REEDLING. ♂. ♀.
Panurus biarmicus.

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THE BEARDED REEDLING.

By J. L. BONHOTE.

The Bearded Reedling, or Titmouse as it is sometimes called, has always been a great favourite of mine, chiefly, perhaps, because it is so entirely different in its habits and plumage from any other bird; it has a charm of manner, entirely its own, and is the only existing form of a race which belonged possibly to the avifauna of a former age, but still holding its own, even in this country where a gun is never lacking should an uncommon or curious bird show itself. The plumage is too well known to require a detailed description, and to any who may not know it, the accompanying plate will give at a glance, better than any words, a general idea of the bird's appearance.

There has been much doubt, and many controversies as to the exact systematic position of the genus *Panurus*, which seems to have left the question much where it was. Although rather beyond the scope of this Magazine, it can do no harm to point out in as few words as possible, the various ideas on its systematic position. It was first placed among the Tits by Linnaeus in about 1765, in which position it was allowed to remain unchallenged till 1833, when Mr. Blyth, from a careful examination of its habits in captivity, and from its internal structure, expressed the opinion that it was nearly related to the Shrikes (*Laniidae*). This opinion he subsequently altered, and placed it near the Waxbills (*Estreldae*). Macgillivray in 1840, from a study of the soft parts, placed it near the Buntings, while Messrs. Sharpe and Dresser in their "Birds of Europe" believe it to be allied to the genus *Sphenæacus*. Prof. Sundevall places it among the *Viduinæ* or Whydah birds; the late Mr. Bartlett considered it allied to *Liothrix*. Mr. Parker maintains that near the *Paridae* is its proper place, and Dr. Butler states that in his opinion it forms a link between the *Ploceidae* and Buntings. Among such a mass of conflicting statements, it has been left at the head of the *Paridae*, although it is tacitly acknowledged to be in its

wrong place. Not having gone into the question I shall not venture to contradict or confirm any of the above statements, but will merely notice, in the course of this article, any other birds of which its habits may remind me.

This species is widely distributed in suitable localities, *viz*: large reed beds, from England to Central Asia, not being found north of the Baltic. The nest is placed on the ground, and is built of reeds and sedge leaves, woven together, and lined with the flower of the reed. The eggs, about six in number, are white, sprinkled with small black markings, and two broods are generally reared in the season. As a British bird, the Bearded Reedling is now practically restricted to parts of Norfolk, where it nests annually, though in steadily decreasing numbers; fifty years ago, writes Mr. Gurney, the number of nests in one year was estimated at one hundred and sixty, while now, at the most thirty-three pairs bring off their young, the cause of the decrease being chiefly due to the slow but sure "growing up of the East Anglian Broads," and also to the systematic trade in their eggs for collectors. Now however, owing to the protection afforded to both birds and eggs by law, as well as to the efforts of several gentlemen interested in their country's avifauna, one has reason to hope that the decrease may be arrested, and that the Bearded Reedling may long continue an inhabitant of our somewhat inhospitable marshes.

Let us now consider this bird from an avicultural point of view, and without exception it is, I think, the nicest of all small cage birds. It is by no means easy to keep alive for long in a cage and requires a great variety of food; the longest period I ever kept one was for two and a half years, having kept several others at different times with very indifferent luck. Strange to say the chief thing they suffer from in captivity is too much warmth, and they never seem to do well in a heated place, for they lose all their feathers, take cold and die; while on the other hand, a pair in my possession never looked in better trim than during the severe frost of Feb., 1895, when we had six weeks' continual frost with thermometer several times below zero.

They were kept by themselves in a cage 2ft. by 18 inches, 2ft. high, exposed to the south and west but sheltered on the other aspects, and roofed in; half the cage was clear, but the other half covered with a layer of cement, in which were placed, upright, the tops of reeds which were renewed twice yearly. Several reeds were purposely broken half-way up, and bent so as to form horizontal perches, and every night they regularly

roosted close together on a thin horizontal reed near the top of the cage. During the daytime they were ever on the move, continually uttering a soft low note (*a*), which with the exception of the loud and ringing call note, was the only sound they ever made.

They were fed on mixed seeds, hard-boiled eggs, ants' eggs and occasionally some scraped beef, or some mealworms, but for these latter, they did not show the marked partiality all species of Tits and soft-billed birds generally do, and when eating them, did so after the manner of a Finch, *viz* : well masticating with their mandibles first, and not swallowing them whole, as soft-billed birds ; nor, needless to say, picking them, while holding them with their feet as Tits. Seeds they swallowed whole, and did not shell, and when feeding, reminded me rather of a gallinaceous bird, for on settling on a heap of food on the floor (they always carefully emptied the dish on to the floor), they would do a peculiar sort of backward shuffle, scattering the food still more completely, and after turning their head to see what they had uncovered, pick up a seed and dart off to repeat the operation elsewhere.

With regard to their usual mode of progression, about which some doubt apparently exists (*b*). I was at some pains to observe them, and undoubtedly their most usual way is by short hops, intermingled with a curious and peculiar shuffling walk, somewhat like the strut of the Chaffinch, but with the head near the ground. I have also a further note, written some years ago, stating that it occasionally walks, with a similar motion to a Wagtail, but less jerkily. I will not pledge my word to this last statement, but it may be more accurate than my memory, as it was written with the birds in front of me : so much for its habits on the ground, where it certainly spent a considerable part of its time ; when in reeds however, it hopped about quickly from one to another, being, as before stated hardly ever still. The only peculiarity worth noticing was the curious way in which it would

(*a*). This note is simply a low and soft form of a call-note, and if not answered is repeated louder ; the uttering of this call is I fancy to a great extent involuntary, and is obviously to keep the flock together, when feeding among the thick cover afforded by the reeds. It is perhaps interesting to compare the similar incessantly-uttered note of the Scops Owl, which is uttered doubtless, also to enable them to find their friends in the thick forest they inhabit ; and probably further observation would elicit the fact that most birds living in thick cover, have some similar means of keeping together. It may be also noted that very few of such birds have any distinctive markings, by which they might be recognised on the wing, as is the case with some birds frequenting the open country, *e.g.*, Chaffinch, Bramble-finch, Linnet, etc. See also articles by myself on the Brambling Vol. III., p. 110.

(*b*) *Vide* Yarrell Brit. Birds, I., p. 518.

mount two reeds at once, its feet being turned outwards, and each grasping a different reed, and then by moving each foot alternately, it would soon reach the top. With regard to the moult, there is not much to relate, they have apparently only a single moult, in Autumn, and their plumage was the same throughout the year.

At the beginning of their second Spring, my pair showed signs of mating; previous to this they had always lived in perfect harmony, feeding and preening one another, and sleeping close against each other at night, but now the cock spent most of his time chasing the hen backwards and forwards all over the cage. Having, at the end of some ten days, brought her into a fit and proper state of obedience to his wishes, they began amicably to build a nest, which was placed in the reeds on the floor of the cage; the exterior was a very rough and loose structure, doubtless from want of suitable material, but inside it was carefully lined with the dead flower of the reeds, and nicely shaped. It was built by both birds, but the cock alone brought the materials, and in consequence, had less of a hand in the building. On the 14th of April the first egg was laid, and the clutch of seven was completed by the 21st. The hen, however, refused to sit, so on the 24th, I placed six of them under a Canary, the seventh being broken by mice, which, I believe, was the cause of their disinclination to sit. On the 27th they began laying again, and completed a clutch of six, with the same result, and later on another clutch of five, the last egg being thin-shelled and double-yoked; on none of these occasions, however, did they show any inclination to sit. Of the six eggs under the Canary, two hatched, after thirteen days incubation, on the 5th of May. They very much resembled young "Reed-Warblers" and were remarkable for a large dark spot on either side of the back of the tongue; they lived and did well for a week, when they suddenly died off, just as they were shooting their quills, and I am therefore unable to follow further the life-history of one of the most interesting of our native birds.

To sum up briefly, it is distinctly a bird I can recommend to aviculturists; it is difficult to keep in good health, but would do best in a large outdoor aviary; the food should be very varied, and contain a fair proportion of both seeds and animal food. Its pretty and engaging ways, its tameness and its non-combative-ness, render it a very pleasant and harmless aviary inmate.

THE BREEDING OF THE BARRABAND PARRAKEET.

(*Polytelis barrabandi*).

By the Rev. C. D. FARRAR.

If any had told me that I should this year be successful in breeding Barraband's Parrakeet, I should probably have answered them in the words of a certain old Syrian king, "Who is thy servant, dog that he is, that he should do this thing?"—and yet I have actually done so; and there are at present three healthy young Barrabands at Micklefield Vicarage.

Barrabands, I may begin by saying, are not at all like the hideous brute depicted in "Greene's Parrots in Captivity." Such an atrocious and ill assorted mixture of colours I never hope to see on a living bird, and apparently this specimen had a dislocated wing among his other beauties!

The real Barraband is one of the most beautiful birds I ever saw, and the arrangement of the colours is exquisite. Whoever comes to see my birds (and they are far too few) invariably goes into raptures over the Barrabands.

In shape the Barraband very much resembles the Ring-necked Parrakeet, but it is even more graceful.

In Australia they are sometimes known by the ill sounding name of "Green Leeks," but I can't think how anyone could give this lovely bird such a vulgar name.

In size the Barraband is about equal to a Pennant, but has not the girth of the latter, being exceedingly graceful and slim-waisted and with a long pointed tail.

The colour of the cock is a beautiful iridescent green; his forehead is a lovely crocus-yellow, which colour extends under the chin, where it merges into a narrowish band of red. The wings are iridescent green, merging into bluish-green on the flights.

The hen is of rather a different shade of green in the body, merging into greenish-blue on the wings and upper side of the tail. Her eye is dark. The tail has the inner edge of each feather, or the under side of the tail, of a beautiful salmon-pink. She has also a dash of pink on the thighs (c).

There is, therefore, no possibility of mistaking the cock and the hen.

Mr. Gedney says of them, "As cage pets they are very

(c). The thighs of a singularly fine hen, which I have had six years, show orange and vermillion.—O.E.C.

much attached to each other and to their owners." In the very next sentence he flatly contradicts himself: "Green Leeks do not show any strong affection one for the other." Maybe he thought Barrabands and Green Leeks two distinct species!

Mr. Wiener says, "I have gathered costly experience by seeing Barrabands fall in fits from their perches for very trivial causes." When I remember the strange and wonderful things on which he fed his birds, I am not surprised to hear that they left him so suddenly.

Dr. Greene on the Barraband is distinctly pessimistic: "On the whole, one can scarcely recommend the tyro in Parrot keeping to invest his money in Barrabands, which are by no means common, and when imported usually fetch from £3 to £4 each in the market. Enough has been said to show that they are even more difficult to keep than the Purple-cap or Blue Mountain Lory."

Only one ray of light seemed to show through the surrounding darkness. Here are the magic words that fired my ambition; "So far, none of these birds have been bred in captivity, either here or on the Continent; nor are we aware even of any cases of egg production among them." That determined me. I would have Barrabands, cost what it might. I would demonstrate that they could be kept if treated on rational principles, and, maybe, with luck, I would even get as far as eggs, if not farther!

Some years ago I had a pair of Barrabands; but not having very much spare room, I sold them to a friend. We can't breed everything at once, and I was then full up with other kinds; but I said to myself, "The day shall come when I will make room for you, my beauties."

This spring, or rather last "back end" I turned a pair of splendid Barrabands into one of my outdoor aviaries. I did so with fear and trembling after reading my many "Job's Comforters," and I thought to myself, "My dears, yours will be a short life and a merry, and on some near morning you will drop from your perch in a fit and give me a costly burial." However, I determined not to do anything to *hasten their* end; and, as I do not believe any healthy-minded Barraband eats sponge cake, pulped figs, boiled rice, Jamaica sugar, soaked currants, cabbage blooms, mignonette, pea or bean blooms, and so on, I never gave them the opportunity of committing suicide!

When first put out, my Barrabands were rather wild; but soon got to know me, and took little notice of their harmless necessary feeder. They passed the whole of last winter out

of doors—and it was a winter and a half, as we say up here. I remember the day of the awful blizzard: the snow was up to my waist (and I stand six feet) and the cold was of Arctic intensity, and the wind cut like a sharp razor. The Barrabands, however, did not seem to mind it at all.

About May, I began to notice signs of nesting unmistakable to an old Parrot keeper; and, after awhile, Mrs. Barraband disappeared. Now, in their house there are two logs, and so sly was the lady in her ways, and of such lightning-like rapidity in her movements, that for long enough I located the nest in the wrong hole; and well I might, for she entered the hole like a streak of greased lightning. It reminded me of Maskelyne and Cooke, in London. "Now, gentlemen and ladies, there is positively no deception; now, look carefully—whist! and that is how it is done."

I cannot tell the size of the eggs, because I was not fool enough to look at them. I cannot tell (as Mr. Gedney so often does) what colour the fluff of the young was like. My Parrakeets won't stand such liberties—and I don't believe his did either!

The hen sat very steadily; I cannot say exactly how long, about eighteen days, I fancy, but will not be certain. The cock sat on the outside of the log where the hen was *not*, and so further misled me, as I made sure she was inside where he kept watch and ward. I thought this a bit of unnecessary meanness! After a time, I could hear the well-known sounds which told my joyful and experienced ear that youngsters had arrived. Strange to say, I did *not* put my hand in and see. I knew the only thing was to wait and possess my soul in patience.

No one but a Parrot-keeper will ever know the agonies of hope and fear through which I passed during the next five weeks.

After about ten days, Papa Barraband began to visit the nest at intervals; spending all other available time in swallowing seed as fast as his bill could work. At night, also, he did what I have never known any other cock Parrakeet do—he slept in the nest and assisted in brooding the young. This I consider greatly to his credit as it shows him to be a thoroughly "family" man. How many human fathers nurse their babies at night, I wonder, in the Avicultural Society? Mind, I don't say all Papa *Barrabands* do. I will not "generalize," as our late Secretary was fond of iterating, "from a single specimen"!!

The first youngster left the nest on Monday, July 7th, and was a fine lusty chap. In colour he—for I think him a he—

rather resembles the hen ; but where I suppose he will someday have a yellow crown and chin, he now possesses a dove-coloured one, something like a Quaker Parrakeet ; he has pink between the thighs, and pinky-coloured edging to the under side of his tail ; the other part of his person is green ; eyes black, feet blackish. When he first came out, I expect he plumped on the ground, as he certainly could not fly much ; and seemed generally rather surprised with himself and the world at large. To-day, (Saturday) he has learnt to fly fairly well ; can take a seat beside his parents, and even answer the cock in a voice very similar to his own.

While I think of it, my Parrakeets never all come out on the same day, like Mr. Gedney's did ; and they never range themselves in a line on the perch to be admired. Indeed, they have little or no idea of perching for some days.

No. 2 came out about Thursday, and resembled No. 1, but was a little finer in make, thereby making me think that she is a hen. No. 3 came out the following week, and I have not yet made up my mind whether it is a cock or a hen.

I do not think there can be a prettier sight than this family of Barrabands ; and the old birds seem as proud of their efforts as a young couple of their first baby.

With regard to feeding, I always give the very plainest and simplest diet. I believe Parrakeets are like a boy that was at school with me at Lancing : he used to say (and didn't we chaff him unmercifully) " This plain diet and early rising does me a world of good." I believe Barrabands think the same.

My Barrabands have nothing but hemp and canary seed. They like hemp themselves, but I think they have reared the babies entirely on canary. They also have an unlimited supply of flowering grass. The youngsters, when they left the nest, were about a third of the size of the old birds. To-day, July 26th, they have grown famously, and the eldest is nearly as big as the hen.

I hope this article will interest our members as much to read as it has me to write it ; but unless they are strong, I advise them not to go in for the strain and anxiety of rearing a nest of Barrabands. My hair is appreciably whiter since they began nesting.

A NATURALIST'S NOTES IN ECUADOR.

By WALTER GOODFELLOW.

(Continued from page 177.)

As readers of this paper will have observed, I have not attempted to follow any scientific sequence in my notes on the birds of Ecuador, but have treated them as they occurred to me, merely, as a rule, taking a family separately. In the present article, I shall have to be still further irregular in the classification as I am going to write of some of the birds which are found in, and around Quito, or at corresponding altitudes in other parts of the country, and which from their habits and distribution, seem to be eminently suited for cage life in this country. I have already mentioned the difficulties in the way of bringing birds alive from the interior of Ecuador, but as a great number of the species are also to be found in parts of Columbia where the difficulties are not so great, it is possible that at times some of them may reach us from there. Many of the birds found around Quito are also to be found around Bogotá in Columbia. Quito is seven days hard ride from the coast, whereas Bogotá is barely two days ride from the banks of the Magdalena River, from whence one can take the steamer close down to the port of Savanilla, which is in direct communication with Liverpool. The altitude of Quito is 10,000 ft., and it stands at the end of a wide valley on the central table land of Ecuador, between the Western and Eastern ranges of the Andes, and on the outer slopes of the Volcano of Pichincha. The climate is very mild (almost too mild) and much resembles English spring weather in point of temperature, and the days are most equable, but the nights and early mornings are very chilly, and during some months of the year frosts are not at all uncommon. We spent some considerable time in Quito and thoroughly explored all the country around. There are no forests whatever in the immediate neighbourhood, and very little timber, but the mountains in most parts are covered to a high altitude with flowering bushes, and it is scarcely a day's ride round to the Western side of Pichincha where the forest commences. To the North of Quito is a fertile plain, El Egido, encircled by all the giants of the Andes, and all about here birds abound along the hedge rows, and among the gardens and fruit trees.

One of the first birds to attract attention—is the *Turdus gigas*, whose loud liquid notes may be heard on every side. At first sight it might be mistaken for our English blackbird, but

although its notes are much the same, the song is scarcely so sustained. They are to be seen on the topmost twigs of every hedge, and during the months of August and September, I saw many of their nests in the bushes on Pichincha nearly 2,000 ft. higher up than Quito. We also found these birds still more numerous at Papallacta. Their food consisted principally of berries. The male is not nearly so black as our English blackbird, neither are the beak and legs so yellow. The female is very brownish and the breast somewhat speckled. The total length of the bird is just over 12 inches. At times I saw a few in captivity in Quito, and we had one at the Consulate, which used to whistle beautifully in the early mornings and evenings. We first met with them in the mountains of Southern Columbia.

On the Western-side of Pichincha we met with the much rarer *T. leucops*. This is a small bird only just 8 inches in length. The male is very black and glossy all over, and the beak and legs bright yellow: the female is brown and speckled, and more resembles our thrush in colouring, the young taking after her. I cannot say if this species has much song, for it is rare on Pichincha, and we only procured one adult pair and two young ones. I once came across one of their nests. It was in a bush about 4ft. from the ground, and was made of dry grass and moss, not a particularly neat structure, and contained three blue eggs. One was quite plain without any markings whatever, but the other two were slightly speckled with brownish black.

Another bird very common in the vicinity of Quito is the *Pacilothraupis igniventris*. This exceedingly handsome bird of course belongs to the Tanager family, and like the *T. gigas* was always to be seen on the tops of bushes and hedges. I never dissected one but what I found it had been feeding exclusively on berries. I was told in Quito that they often caged them, but that they never lived long in captivity. This I am quite sure was only due to their ignorance in giving them unsuitable food, for a miserable specimen I once saw in a cage had only canary seed and soaked bread to eat, and its owner wondered why it died. With proper food there is no doubt they would be very hardy birds. They are bright and active and have some rather sweet notes. Even in a wild state they seemed tamer than the general run of birds, and allowed one to get quite close to them, when instead of taking flight, they would all of a sudden drop from the twig they were sitting on into the bush below, as if they had been shot. The length of the bird is $7\frac{1}{2}$ inches. The head, neck, throat, back, wings and tail are black, while the breast and

underparts are flaming red, and on each side of the head is a patch of the same colour. The rump and shoulders are a lovely shade of bright blue, rather difficult to describe, being somewhat mauvish and very shining. It is remarkable that these birds should be as common as they are, for almost every boy in Quito uses a catapult or a blow pipe, and is always popping at the birds along the road side. The *P. igniventris* especially affords them a good mark as it sits on the top of the twigs, and I have seen one boy with as many as a dozen of these birds alone, the result of a day's spoil. The poorer class of people in Quito make fairly artistic feather pictures, so birds of bright plumage are much sought after by them and a good sprinkling of the feathers of this Tanager can generally be detected in their productions.

There seems to be very little difference between the sexes, but in placing the skins side by side I notice that the red on the breast of the female is slightly more orange. One reason why the Quitenos get so few birds to live, is because they seem to have no knowledge of trapping them properly. They generally depend upon the aforementioned boys to procure them live birds, which are merely those that are stunned by the clay pellets and are not killed outright. As a rule they are inwardly injured and survive only a few days.

Two other gaily coloured birds found on Pichincha at a higher altitude than Quito are the *Buthraupis cucullata* and *B. chloronota*. The former one we found particularly plentiful at cold Papallacta, where we found them feeding on hard berries and seeds. The length of the bird is $9\frac{1}{2}$ inches. The head, throat, tail and primaries are black, and the neck, back and wing coverts the same shade of blue as in the *P. igniventris*, but with a still more shining surface: the whole of the breast and underparts are clear yellow, and the outer edging of the secondary wing feathers is also blue. The beak is black, short and thick. *B. chloronota* is a trifle smaller bird, and has the head, neck and shoulders violet blue, the throat and upper part of the breast black, and the lower parts of the breast chrome yellow; the vent and under tail coverts being more reddish. The back is leaf green and the secondary wing feathers are also broadly edged with the same colour, the primaries and tail being black. We frequently saw both varieties together, and found it impossible to distinguish the notes of one from the other. They seem to have no song, neither is their call note agreeable, but they have such a bold attractive air about them, that I feel sure they would be nice birds to have in cages. *B. chloronota* seems to be con-

fined solely to Ecuador, whereas the other one is found also in the vicinity of Bogota.

Another brightly coloured bird from Pichincha is the blue *Zanthura turcosa*; this likewise was still more plentiful on the Eastern range at Papallacta, and all those we shot there were much brighter than those from the Western range, which may or may not have had something to do with the season. On Pichincha we seldom met with more than two together, but at Papallacta they were sometimes in flocks of twenty, and made a loud chattering noise the whole time. The Ecuadorians call them "Auroras," and I was told they could be taught to speak, which is not improbable. They feed chiefly on beetles and other insects as well as on berries, and Mr. Hamilton once caught one in the act of robbing the eggs from the nest of some small bird. They have much the same habits as our English Jay, and hold all their prey under the claws and peck it to pieces. The length of the bird is 11 inches, and the whole of the plumage is a bright blue except the forehead which is black, and a broad patch of the same colour extends across the eyes. The head and throat are a still more brilliant hue than the rest of the body, and the throat is encircled by a band of black. The beak is black and rather hooked, and the under surface of the wings, and tail are also black. In the collections of skins from Bogotá can generally be found some of these birds.

The Yellow-bellied Grosbeak (*Phœnicurus chrysogaster*) was also very common at times in the gardens of Quito, where it committed great damage to all kinds of seeds and buds. I have seen them picking off the flowers from bushes and trees out of wanton destruction, and for this reason during our stay at the Consulate we shot all that put in an appearance there when we were at home. It was somewhat curious that I never noticed them in the garden except during the mid-day hours. This was one of the most ordinary cage birds of Quito, in the very few houses where they kept birds, and I should certainly have brought some back with me alive had I been coming straight home from there. Those I saw in captivity were fed on soft young maize and seed, and became so tame as to go loose about the house. I am sorry I cannot remember the name these birds were known by in Quito. It was so familiar to me that I appear to have made no note of it. It has certainly escaped my memory now, although as I write these lines I seem to have it on the tip of my tongue.

In the month of October I found two of their nests near

to Quito, each containing two young ones, and in both cases built in acacia trees. The young resemble the female, and I should think maintain that plumage until the second moult. The number of immature males in proportion to adults was very great. The male is a brilliant yellow all over the body, with black wings and a conspicuous band of white across the primaries near their base; the secondaries are also broadly margined with white on the outer edge and the shoulders also. The tail is black, but the two outer feathers on each side are white on the broader margin for quite half their length, the central ones being only tipped with it. The upper and under tail coverts are white. The female is greenish yellow, and with the wings and tail very brownish. The beak which of course is very thick is black on the upper half and slate colour on the lower half. The total length of the bird is eight inches. They were very fond of the seeds of the acacia trees whether ripe or green. Their bright colour renders them conspicuous birds, and very beautiful indeed do they look flying about. At the village of Pifo in the Chillo Valley near Quito, I often saw them pecking about on an old stone wall, probably looking for insects; as many as four or five were sometimes there together. I never met with the Yellow-bellied Grosbeak on any part of Pichincha, or indeed at any altitude above Quito, but I was surprised to see some of them among a collection of skins which recently reached this country from Guayaquil, shot in the neighbourhood of that port on the island of Puná. It is strange that a bird which is found in the cool mountains at the altitude of Quito, should also inhabit the hot coast lands, and I can remember no other bird in Ecuador to do so except the Black Turkey Vulture.

Another genus of birds which is numerous in and around Quito is the Diglossus, the most common one there being the *D. aterrima*. They are vivacious, attractive-looking birds, and exceedingly fearless, for on one or two occasions I was sitting in the room when one entered at the window and searched all over the place for spiders, taking no notice whatever of me as long as I was still. In the garden they seem for ever on the go, hunting for insects in every bush and plant. A pair started nesting in one of the "patio" gardens of the Consulate, and would not tolerate the presence of any other bird there. A pair of Humming birds (*Petasophora iolata*), which had reared many nests of young in the same garden, had their nests pulled to pieces by the Diglossi every time they started to build: so I should think they must be rather pugnacious little birds during the nesting

season, at all events. Their own nest they built among the sword-like leaves of a slender kind of aloe, most skilfully arranged about 3ft. from the ground. Whilst sitting, they were not in the least disturbed by my standing over them, and never once left the nest when I went to look at them, but would gaze up fearlessly at me with their shining black eyes. The eggs were two in number, blue and speckled with red, but the nest was destroyed by the gardener before the eggs were hatched, much to my regret. A gentleman I knew in Quito had a pair of *D. lafresnayi* which he caught when they entered his room searching for insects as they did in mine. They quickly became very tame, and would readily take flies from the fingers; after a time they were allowed out to catch them for themselves. Flies and bread crumbs formed their sole diet, and on the ordinary foods for soft-billed birds they would undoubtedly thrive well. They were very fond of bathing and kept themselves in the pink of condition. This species is glossy black with lavender-coloured shoulders, the whole length of the bird being 6 inches. Their curiously-shaped beaks give them a very perky appearance. Out of the fourteen known species coming from Northern and Western South America, we found six of them inhabiting the neighbourhood of Quito, namely *aterrima*, *sittoides*, *humeralis*, *lafresnayi*, *personata* and *indigotica*. They are found only in mountainous regions. We shot an albino specimen of *aterrima* near Quito. The *personata* is a handsome bird, blue all over and with a black mask, but the tiny *indigotica* is the prettiest of all, being a much richer shade of blue than the well-known Indigo birds from the States. The *Diglossi* range from Mexico down to Bolivia.

Still another little frequenter of the gardens in Quito is the Black-headed Siskin (*Chrysomitris capitalis*). They go in flocks and fill the air with their sweet song. They seem to feed chiefly on the seeds of flowering grasses, and I have seen them fly up in clouds from the fields. I saw a few in cages, and considering how well they sing it was quite a wonder they were not more generally kept, and being seed eaters they would be less trouble to their lazy owners. I was frequently told that the reason they did not keep more birds was because they were so much trouble to look after, and as for bringing up a nest of young birds! "Why, nobody but a lunatic would take the trouble." The cages they used had only wire bottoms to them to save the owners the trouble of cleaning them out, and the state of the floor underneath was of minor importance in their

sight. In one or two houses I visited of the higher class, they had properly made cages, but they might have only been cleaned out once a year for the excrement had formed into pyramids until it touched the perches, and this was in canaries' cages.

The male Black-headed Siskin is a very pretty little bird, with a black head and throat, greenish yellow back, the breast and underparts more or less yellow with green shading on the flanks. The wings are black and barred with bright yellow, the secondary feathers are tipped with white. The female lacks the black head and is a more uniform brownish green, and the yellow on the wings is also much less distinct.

Some species of doves are very abundant in the immediate neighbourhood of Quito, but they call for no special attention with the exception of the little *Chamæpelia passerina* which abounds in the valley of Chillo. This is rather a dry sandy valley where acacias and aloes chiefly flourish, and has been devastated over and over again by eruptions from Cotopaxi. Here these little doves may be seen running along the dusty roads everywhere, and might easily be snared in great numbers. The male is especially pretty with his delicate fawnish pink colouring; the wings are spotted with purple bronze, and the primary and secondary feathers are rufous red edged and tipped with black. When flying the wings have the appearance of being wholly red. In the female the fawnish pink colouring is not so bright. The bird does not exceed $5\frac{1}{2}$ inches in length. I found their nests on the branches of the acacia trees and also one on the giant flower stalks of an aloe. It was exposed to all weathers and liable to attack from birds of prey, which were common about there. I could not have got it without chopping down the plant, but I could see the bird sitting on the nest. The other nests I saw were in each case built of fine twigs, a little dry grass, and the thin dry seed pods of the acacia trees. They appear to have a wide range through Central and South America, and we met with them in many parts of Columbia, but always in the higher mountains.

Another pretty Dove much larger than the preceding species was the *Metriopelia melanoptera*, which we met with only on the high wind-swept regions at the foot of the cone of Cotopaxi at an altitude of from thirteen to fourteen thousand feet. I can't imagine what they find to eat amidst such desolation, for the only vegetation was a scanty wiry grass growing here and there, among the cinders, rocks and lava

thrown out from the crater. The length of the bird is $8\frac{1}{2}$ inches. The head, back and upper part of the breast are smoky dove colour, much darker towards the rump, and the under parts a very light dove colour. The tail and wings are black, the primaries being very finely margined with white on the outer edge near the tips. The shoulders are pure white and look very conspicuous when flying. The most curious thing about the bird is the bright primrose coloured bare spot it has between the beak and the eye which fades when the bird is dead. This dove ranges through the mountains at high altitudes from Central America down to Chili.

I can hardly leave out the White-tailed Solitario *Agriornis solitaria* from this article, as they are to be seen about on the house tops and in the gardens throughout Quito, and they at once attract attention by their loud liquid notes. They nest under the tiles of the houses, in the thatch of the huts, in Church towers and also in trees. If I had time I might considerably extend the number of birds from these regions suitable for captivity, for I can think of more than double the number I have already mentioned which equally claim attention. I have said nothing of the Grallarias which may be seen hopping about under the hedges, especially under the bushes on the slopes of Pichincha, *G. squamigera*, *hypoleuca* and *monticola* being among the more notable ones. They would look extremely nice in a large garden aviary. Then there are those miniature Owls, the *Glaucidium jardinii* which sit and blink outside their burrows or on the ledges of rocks all day; neither have I time to treat of any of the members of the genus *Catamenia* and also *Phrygilus* which one meets with in flocks, and all of which are eminently suited to cage life, being seed eaters. I think though, I have said enough to show how many interesting birds there are well-adapted to stand our climate, and of which unfortunately at present we know so little. As I have said before, it is a pity that in many cases the regions they come from are so difficult of access, that under present circumstances we are debarred from obtaining them, but if any readers of these pages should feel tempted to visit Ecuador, these notes may be of use to them in indicating the birds most suitable to look out for, and the localities where to find them.

(To be Continued).

THE UNITED KINGDOM FOREIGN CAGE BIRD SOCIETY.

By H. R. FILLMER.

The title at the head of this paper was very familiar to the founders of the Avicultural Society five or six years ago, but probably it is quite without meaning to nine out of ten of the members who have joined us during the last four years. I have for some time been desirous of giving our newer members some account of the old Society, which was the parent of the *Avicultural*, and began a little article on the subject some months ago; but I found it very difficult to handle, and for the time abandoned the project. Now I am going to try again; but I must ask my readers to bear in mind that, in order to avoid treading on corns, and unearthing buried controversies, I must refrain from saying a good deal which I may perhaps be expected to say. Being thus hampered in my treatment of the subject, it is possible that I may convey a somewhat false impression of what I am going to give an account of. But I will do my best within my limitations.

The U.K.F.C.B.S. was founded in 1890, and very soon had fifty members. The first President was Dr. W. T. Greene, and the Vice-President the Rev. H. D. Astley. Mr. W. Osbaldeston was Secretary and Treasurer, and filled those offices during the whole existence of the Society. The first Committee consisted of Messrs. W. Bottomley, S. Barnes, J. T. Dewar, J. Frostick, T. C. Kneen, F. Spencer, W. Oakey, J. A. Sleep, C. P. Arthur, W. Swaysland, J. Abrahams, and H. T. T. Camps. The chief purpose of the Society was the issue of a Monthly Report, consisting of Notes by the Secretary and letters or short articles from members, with an occasional reprints of articles which had already appeared elsewhere. These Reports varied in length; some consisted of but two or three small pages, while others attained the dimensions of a short number of the *Avicultural Magazine*. The matter was similar to that in our Correspondence pages, but the Editor might, with advantage, have used the blue pencil more boldly than he did.

The U.K.F.C.B.S. appealed also to Exhibitors, and did the work now performed by the F.B.E.L. The Society held a Show at Preston in 1891, and one at Brighton in 1893, and both were great successes in their way.

The Society seems to have reached high-water mark in 1892-3, when it had a membership of about ninety. The late

distinguished ornithologist Lord Lilford became President, and the Committee was strengthened by the addition of the names of Dr. Simpson, Mr. J. Sergeant, and others. The bound "Reports" of this year form a volume of 254 pages.

Next year, 1893-4, there was a slight falling off in the membership, while the Reports consisted of only 142 pages. In the following year, the membership had fallen to between thirty and forty, and the Reports to about seventy pages. In May, 1895, the Society was amalgamated with the Avicultural Society.

Ths four Volumes of Reports (Vol. I. has long been out of print) are useful for reference, as several cases of breeding are therein recorded. But, to the present-day aviculturist, the chief interest of the U.K.F.C.B.S. lies in the fact that it was the fore-runner of the Avicultural Society, and if it had not existed, it is probable that the Avicultural also would never have come into being. The object of the founders of the Avicultural Society was to start a similar Society on improved lines, and they did not launch the new Society until after an unsuccessful attempt to reform the old one.

Another Society which served in some degree as a model for the Avicultural was the Cage Bird Club (*d*). No doubt the success of the Avicultural Society is in some measure due to the fact that its founders had before them the examples of the U.K.F.C.B.S. and the Cage Bird Club; they endeavoured to imitate the good points of each, and also tried to avoid what they believed to be the defects of these Societies.

ZOO NOTES.

By J. LEWIS BONHOTE.

X.—JUNE.

June 1	Occipital Blue Pie— <i>Urocissa occipitalis</i>	West Himalayas.	W. Aviary.
„ 2	Brown Mock Thrush— <i>Harporhynchus rufus</i>	N. America.	„
	Chough— <i>Pyrhcorax graculus</i>	Brit. Isles.	Crows' Cages.
„ 5	3 Goshawks— <i>Astur palumbarius</i>	Europe.	W. Aviary.
„ 8	Allen's Porphyrio— <i>Hydrornis alleni</i>	Captured at Sea.	„
	Little Egret— <i>Ardea garzetta</i>	N. Africa.	E. Aviary.
„ 11	Orinoco Goose— <i>Chenalopex jubatus</i>	S. America.	Duck Ponds.
	Little Guan— <i>Ortalis motmot</i>	Guina.	E. Aviary.

(*d*) I mean, of course, the *old* Cage Bird Club, with which Mr. W. H. Betts was indentified.

June 11	Blue-fronted Amazon— <i>Chrysotis æstiva</i> , S. America.	Parrot House.
	2 Wandering Tree Ducks— <i>Dendrocygna arcuata</i> E. Indies.	Duck Ponds.
„ 12	Angolan Vulture— <i>Gypohierax angolensis</i> W. Africa.	Reception Shed.
	De Filippi's Meadow-Starling— <i>Sturnella defilippii</i> Argentina.	W. Aviary.
„ 13	Angola Seed Eater— <i>Serinus angolensis</i> Angola.	Parrot House.
	3 White Ibises— <i>Eudocimus albus</i> Bred in Gardens.	Great Aviary.
	6 Glossy Ibises— <i>Plegadis falcinellus</i> „ „ „	
„ 14	Yellow-billed Sheathbill— <i>Chionis alba</i> Off Cape Horn.	E. Aviary.
„ 15	Whinchat— <i>Pratincola rubetra</i> Europe	W. Aviary.
	Black Redstart— <i>Ruticilla titys</i> „ „	
	Meadow Pipit— <i>Anthus pratensis</i> Europe.	„
	Pied Flycatcher— <i>Muscicapa atricapilla</i> Europe.	„
	Blue-headed Wagtail— <i>Motacilla flava</i> Europe.	„
„ 18	2 Yellow-bellied Liothrix— <i>Liothrix luteus</i> India.	„
	Cockatiel— <i>Calopsittacus novae-hollandiae</i> Australia.	„
„ 20	Grey Parrot— <i>Psittacus erithacus</i> W. Africa.	Parrot House.
	Yellow-cheeked Amazon— <i>Chrysotis autumnalis</i> Honduras.	„
	9 Mountain-Witch Ground-Doves— <i>Geotrygon cristata</i> Jamaica.	W. Aviary.
	4 Ring-necked Parrakeets— <i>Palæornis torquata</i> India.	Parrot House.
	Small Hill Mynah— <i>Gracula religiosa</i> India.	W. Aviary.
	3 Spotted Owls— <i>Athene brama</i> „ „	N. Aviary.
	3 White-throated Finches— <i>Spermophila albigularis</i> S. America.	Parrot House.
„ 21	White-eared Couure— <i>Pyrhura leucotis</i> Brazil.	„
„ 23	3 Chaplain Crows— <i>Corvus capellanus</i> Persia.	Crows' Cages.
	2 Pied Mynalis— <i>Sturnopastor contra</i> Bred in the Menagerie.	W. Aviary.
„ 26	Levaillant's Amazon— <i>Chrysotis levaillanti</i> Mexico.	Parrot House.

The arrivals this month, as will be seen, are all, with one exception, well-known, and frequently figure on the list of arrivals at the Zoo, and, in consequence, there is but little for me to write about. The Allen's Porphyrio makes, if I mistake not, the third presented this year, all of which have been captured at sea. The Orinoco Goose and Wandering Tree Ducks,

both interesting birds of their kind, I was unable to find, the Duck Ponds being somewhat extensive, and at this time of the year, rather overgrown; in my search however I came across a nice brood of young Pintail, and on one of the small ponds, some very nice specimens of Boers Duck (*Fuligula bæri*).

The Angolan Vultures, in very bad condition, are now in the Kites' Aviary, behind the Eagles' cages, but are not worth a visit. In the Western Aviary, the Yellow-bellied Liothrix and Mountain Witch-Doves are perhaps the most interesting of the new arrivals; among the other nice birds in the same Aviary is a Roller, which I think came in last month, and a nice lot of the various Weaver Birds in full plumage, the most noticeable of which was the Golden-backed Weaver Bird, in superb trim. Of the other orders in the same aviary, a pair of Australian Rails (*Rallus pectoralis*) and some Common Sandpipers (*Totanus hypoleucus*) were in lovely plumage and condition.

The Storks were not apparently successful in their nesting operations, as they were both wandering round their paddock looking very disconsolate.

The only Gulls which appear to have hatched in the Gull-ponds were a pair of Great Black-backs, which were about half grown, and looked very pretty chasing their parents round the pond. In the Great Aviary, opposite the Eastern Aviary, a pair of Jamieson's Gulls are being successfully brought up, while young Ibises are to be seen all over the aviary; a pair of Night Herons are also sitting, but, so I was informed, are not likely to hatch.

The one exception referred to at the beginning of this paper is the arrival (not mentioned in the list) of five Gentoo Penguins (*Pygosceles taniatus*) from the Falkland Isles; they are placed near the Emperor Penguin (who, by the way, still continues well), and the Sea Lion. They are like most Penguins, a plain-coloured bird, dark slate above and snowy-white below, and appear to have stood their journey well, but were rather unhappy in the present heat.

CORRESPONDENCE.

A PROPOSAL TO EXTEND THE SCOPE OF THE MAGAZINE.

SIR,—Permit me to enter my protest against the suggested alteration in Magazine. We are a Society of aviculturists, *not fanciers*. I cannot conceive how the Canary fancy can be termed aviculture in any sense—therefore, to be consistent, if we admit them to the Magazine it seems to me we must alter the name both of Society and Magazine; and cannot but

think with Dr. Butler and others, that the proposed change would work disastrously for the Society. I should have written earlier, but have been laid up the whole of this year and am still unable to attend to business.

W. S. PAGE.

NOTE—The writer of this letter wishes it to be known, that it was written before he had seen the July No. of the Magazine. EDITOR.

SIR,—At the risk of becoming tedious on this subject, I venture to comment on Mr. Seth-Smith's foot-note to my last letter. He says,—“The admission of Canaries would cause all our most scientific members to leave the Society in disgust; whereas our chief aim should be to make our paper more worthy of their support.” Some time ago Dr. Butler gave expression to similar views.

Personally, I give our “scientific members” credit for more sense. I do not believe that the changes which I have suggested would lead to their resignation—for this strange prejudice against a particular species is eminently *unscientific*. But even if they did resign, their loss would not be insuperable. Their number is very small, and their activity on behalf of the Society (with a few notable exceptions) by no means conspicuous. It seems to me that a tendency is developing to subordinate the Society to the views of a minute minority. I protest against Mr. Seth-Smith's statement that our chief aim should be to make our Magazine more worthy of the support of the scientists (the word is abominable English—but I suppose it must be used). Our aim should be nothing of the sort—it should be to promote aviculture, and to give the members advice and assistance in the pursuit of their hobby. The Society is not a scientific Society, and the great majority of the members know little of science and care less. By playing at being a scientific body we shall only make ourselves ridiculous, and neglect our proper work.

I would not be misunderstood. I heartily appreciate the assistance which has been rendered to the Society by one or two scientific ornithologists, and I would cordially welcome their co-operation in the future. But I object to the interests of the general body of members being subordinated to the (supposed) tastes and prejudices of a small number.

At the time when the Avicultural Society was founded, there was a tendency on the part of some avicultural writers to belittle the work of scientific ornithologists, to invent eccentric systems of classification, and to make friendly relations between scientists and aviculturists almost impossible. Our Society has altered all that. The pendulum has now swung far in the opposite direction, and we are threatened by a very different but equally dangerous tendency. We are now told that our “chief aim” should be to win the approval of the scientists.

If *this* is in future to be the aim of the Society, it will, I am convinced, rapidly grow out of touch with nine-tenths of its present supporters. Aviculturists will not submit to be treated as the humble followers of the ornithologists. Aviculture is, in a sense, a branch of ornithology, but it is not an inferior or dependent branch. There is a real danger of confusing aviculture and ornithology, but the two things are essentially distinct and different.

The horticulturist can help the botanist, the apiarist can help the entomologist—but we are not told that the chief aim of horticulturists should be to win the approval of botanists, or of bee-keepers to receive the applause of entomologists. The horticulturist cultivates plants because of their beauty or their utility, or both. The aviculturist cultivates birds for the same reasons, and also because their companionship gives him pleasure. There are a few who keep birds partly with a view to studying and recording their habits, and thus adding to our knowledge of ornithology—but such persons are to such an extent ornithologists and not aviculturists. Let us try to “clear our minds of cant.” We are not, as a Society, scientists; we do not, as a Society, keep birds with any direct scientific object. Then, in the name of common sense, let us not pretend to be what we are not.

I fear that I am wandering from my subject, and will return to the consideration of Mr. Seth-Smith's remarks.

As to advertising the Magazine. This has been tried before, and it was proved by experience that advertisements in weekly papers did not pay. If the Society embarks on a policy of advertising, it will be found that each new member, so gained, will cost many times the amount of his annual subscription. I differ from Mr. Seth-Smith on this point also, that I do not believe in the existence of the “great many aviculturists who have never heard of the Magazine.” I believe, on the contrary, that the number of persons sufficiently interested in the subjects of our Magazine to become regular subscribers, and who have never heard of it, is very small.

Mr. Seth-Smith ignores the existence of a powerful “fancy” element in connection with foreign and British birds, especially the latter. This element has never been any trouble to the Society, and there is no reason why the Canary “fancy” should be more difficult to deal with. My personal experience is that Canary “fanciers” are neither better nor worse than “fanciers” of British and foreign birds.

One of my chief motives in urging the admission of Canaries, is that an arena for the discussion of Canary topics may be provided, which shall be free from the objectionable features of the fancy journals. Our Society has done much to elevate the pursuit of the culture of foreign and British birds, and I hold that it is now our duty to try to do the same for the pursuit of the culture of Canaries.

I feel sure that there is no risk of the Magazine being turned into “a common fancy paper,” so long as it is under the control of the present Editor and Executive Committee; and to admit such a possibility seems scarcely a compliment to them.

H. R. FILLMER.

SIR,—Mr. Fillmer at one time seemed to appreciate the fact that the study of living birds was the truest science: he now says that the Society is not a scientific one, and he evidently desires that it should not be recognized as such: unhappily for Mr. Fillmer's wishes it *is* recognized as such already, and the contents of its organ are regularly noted in the “Zoological Record”—a work which deals only with publications of recognized scientific interest.

Mr. Fillmer's present attitude is to me quite incomprehensible. Time was when none of our members was more anxious than he that the Society should be based upon strictly scientific lines; no member objected

more strongly even to the very term "fancy;" now he would persuade us that aviculture and "the fancy" are one and the same thing, that the refusal to study the abortions of man's creation amounts to the refusal to recognize certain natural species: he knows as well as anyone that this is not a correct statement of facts, and that our pages are now open to anyone who cares to write an article either on the wild Canary or the Rock-pigeon.

When an advocate is obliged to misrepresent facts to bolster up a weak case, surely it is no longer worth while to consider it: doubtless it would be unscientific for us to refuse an article on either of the birds above mentioned, but it is not unscientific to refuse to include monstrosity-breeding (generally known as "the fancy") into a Society founded for the serious and scientific study of wild birds.

I deny that the wishes of the many are subordinated to the few as Mr. Fillmer hints; I am sure that the majority of bird-lovers care little or nothing about Canaries.

A. G. BUTLER.

SIR,—To start a controversy with my friend Mr. Fillmer is the last thing I should have wished for, but I think his letter calls for some comment from me.

I am perhaps mistaken, but I feel and always have felt that the aim of our Society should be to increase our knowledge of the habits of birds, and to find out all we can about their wild life, by keeping them in a state approaching, as nearly as possible, to that in which they enjoy life in a wild state.

I dislike cages and the term "cage-bird," and I had hoped that one object of our members was to discourage the keeping of birds in cages and to encourage their culture in large aviaries. Moreover, I hoped and thought that we were to confine our attention to the lovely natural forms in the state in which an All-wise Providence created them, and have nothing to do with the artificial productions of man.

If we are to open our columns to the domestic Canary, with all its numerous and often hideous varieties, and which is nowhere to be found in a wild state in its present form, why should we not also admit all the domestic poultry and Pigeons?

We have also been asked to admit mammals, reptiles, and fishes. Personally, so long as all domesticated forms were excluded, I should have far less objection to these than to the domestic Canary; although I think it would be a mistake to admit any of them. Still, supposing quadrupeds and Canaries were admitted into our Magazine, we should then have domesticated creatures amongst the birds, and we should have no shadow of excuse for excluding domestic quadrupeds—dogs, cats, rabbits, and white mice.

Surely we have a wide enough field for study if we admit only all birds which have not undergone domestication.

Mr. Fillmer says "this strange prejudice against a particular species is eminently *unscientific*." No one is prejudiced against the species as it occurs in its wild form, it is only the domesticated bird, which is as unlike the pure wild bird as black is unlike white, that is objected to. The very idea of opening our pages to discussions on such subjects as "colour-feeding," "crest-breeding," &c., is to me loathsome.

I contend that every aviculturist should strive to be an ornithologist, (just as the horticulturists should be a botanist, and the apiarist an entomologist) and our Magazine should teach him to become such.

Where is the pleasure in keeping birds if you know nothing of their wild life, or if you do not seek to study minutely their life habits, or if you know not from whence they come?

Mr. Fillmer was once opposed to the term "fancier," as applied to the aviculturist, but his views seem to have changed somewhat. For my part I hate the term, for the fancier keeps his birds solely for show, or for what he can make out of them, and cares not how he distorts nature; whereas the aviculturist keeps his birds because he loves to study their ways, and to learn all he can of wild nature.

D. SETH-SMITH.

GREY PARROT WITH TUMOUR.

SIR,—I shall be much obliged if you will kindly assist me with your advice, as to how to treat a favourite Grey Parrot. Within the last few weeks, we have noticed a growth appearing on the side of his face, near the jaw. At present it is the size of a filbert, and quite hard; the bird does not appear to suffer any inconvenience, and is quite cheerful, talking and whistling as usual. He appears to feel no pain as he will allow you to rub it. He is twenty-seven years old, and in all other respects is perfectly healthy and in first-rate plumage.

LAURA SWINFEN BROWN.

The following reply has been sent to Mrs. Swinfen Brown:

There can be little doubt that the swelling on your Parrot's face is a fatty tumour, and could be easily removed by an expert, without giving the bird much pain. You cannot do better than get a veterinary surgeon to examine it, and to operate if he thinks it sufficiently advanced.

A. G. BUTLER.

FOREIGN BULLFINCH AND GOULDIAN FINCHES.

SIR,—Kindly inform me if a foreign Bullfinch from Florence should be allowed dandelion seeds, and how many in the day. When do Bullfinches moult? The one I have sits quite still all day and never attempts to sing, and looks very ill, but I see no feathers in the cage.

Kindly inform me from whom I can obtain fine Indian millet, the colour of spray millet only smaller seeds. I require it for Gouldian Grassfinches.

GEORGINA H. MAITLAND.

The following answer has been sent to Mrs. Keith Maitland:

This is the time of year at which Bullfinches begin to moult: which may account for your bird being quiet and not singing. He may have a few dandelion seeds if he likes them, but fresh green chickweed daily is a better diet, and green food is necessary.

I do not know any millet smaller than spray millet, or any better than this for Gouldians. There is, of course, the pure-white millet, procurable at any good bird shop; but this is larger, and I have always found my Gouldians thrive best on spray millet, and they have lived with me towards five years—an unusual term of life in captivity for them.

O. E. CRESSWELL.

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SEPTEMBER, 1900.

THE LITTLE OR YELLOW-THROATED FINCH.

(*Phonipara pusilla*.)

By REGINALD PHILLIPPS.

(Continued from page 199.)

According to the Museum Catalogue (vol. xii. p. 148), *P. pusilla* and *P. olivacea* (a) merge into each other; "and it is certain that they cannot be regarded as more than sub-species." This may be so; but I think it should be pointed out that (so I gather from the Catalogue) the birds on the islands (Greater Antilles) breed true to colour as *P. lepida*, while the mainland birds (from Mexico throughout Central America to Panama and Colombia—and also presumably on the island of Jolbox) breed true to colour as *P. pusilla*. It would seem that it is only on the island of Cozumel that the two merge into each other, by the Cozumel specimens of *P. pusilla* (distinguished as *P. intermedia*) having green ear-coverts like *P. lepida*, and smaller breast patches than the typical bird.

The smaller breast patch and the green ear-coverts seem to be the disturbing features. But allowance does not seem to have been made for the changes of plumage, perhaps partly seasonal and partly in respect of age. It is quite possible that most of the specimens from each locality, in the Museum, may have been obtained at the same time. I do not know if such was the case, but British Naturalists do not visit such a place as the island of Cozumel every day. Now the numbering of my males was in accordance with what appeared on their arrival to be simply the brightness of their plumage, but what was probably their degree of forwardness, which naturally carried with it proportionate vigour and courage. But the developments do not seem to have altogether stopped with the moult, for No. 3,

(a) This is one of several instances in the Catalogue where the author betrays that he has not the courage of his convictions. In this case, he considers that the familiar specific name of the Olive Finch should be superseded, and styles the species *P. lepida*; but in the text he talks of it not as *P. lepida* but as *P. olivacea*.—R.P.

who lived longer than No. 2, was in the more advanced plumage when it died, being much more yellow in general colour, but with a crown only slightly darker than the body, whereas on No. 1 the black from the forehead extended up to and encroached upon the (b) crown. On the other hand, from about the time that the latter was struck with mortal illness, the black breast patch, which had been his great beauty and distinguishing mark, very greatly faded, and the upper parts of the body had become again of a dull brown, the yellow wash having disappeared. On March 16, I was so struck by the inconspicuousness of the breast patch that I was quite perturbed, wondering if the bird could be only *P. lepida* after all. The bird was on the ground near the window, feeding in the sun; and at a distance of less than two feet I scrutinised the plumage carefully (not for the first time by many), and found that the ear-coverts were tinged with green as in the Olive Finch. I at once referred to the skins of males 2 and 3, and a glance at their breasts reassured me, for previously No. 1 had been the most finely plumed of the lot.

Altogether our knowledge of the plumage of these two birds, in their several stages, seems to me to be in an unsatisfactory state; and further investigation would seem desirable.

The last chapter in the history of my Little Finches is a sad one; indeed the whole story seems but a mournful record of blundering and disaster. On January 28, 1900, I suddenly became aware that both my males were dying, No. 3 dying the same night from acute inflammation. Both had been shut up, in separate cages, on opposite sides of the room, with a number of other birds. Whether the room door had been left open in the early morning, perhaps too while the adjoining front door was open for door-step-cleaning purposes, or otherwise, I do not know, but evidently there had been some sudden undue lowering of the temperature of the room. To make the matter worse, a spiteful female Bengali had worried and injured No. 1. So crushed and cowed did he seem that I placed him quietly with the little widow, in the hopes that her presence might give him heart, which, doubtless it did, for he lived quietly and I may say happily with her until March 18, when I found him dead in bed, having passed away in his sleep, from some disease of the kidneys brought on doubtless by a chill. It is unquestionably a delicate species, requiring special watchfulness as regards

(b) This black seems to run up the sides of the crown in a V shape, forming an edging, sometimes faint but sometimes broad and bold, to the yellow superciliary streaks.—R P.

temperature; for of over thirty other little birds kept in the same room through the winter I did not lose one.

During these days of the last male's illness, the female had not been allowing the grass to grow under her feet. Before many days had passed after his admission to her presence, she had built in a rush nest hung up in the cage, but the four eggs were clear. Yet another nest did she build, this time in a box, her mate's sleeping apartment; but his presence disturbed her, and the nest with three eggs was deserted, and a fourth clutch of three was immediately laid in the rush nest where the second batch had been. But, owing to the sickness of the male, these also were clear. Both these nests (uncovered) were constructed by the female without any assistance from the male, and almost entirely of hay and dry grass.

Two curious little points came under my notice when the female had completed her time on the last clutch. I was in the habit of opening her cage when I came down in the morning, and giving her a call, when she would come out for a fly and other purposes; but apparently she always remained on the nest until the door was opened. Even in this, by the way, we may perhaps see a reason why some birds will never rear young in a cage with a generally closed door. On March 19, the plucky little thing, once more a widow, came off with something in her bill. For the moment I thought it must be a piece of shell from a newly hatched bird, but it was only a bit of hay. Did her instinct teach her that time was up! or did she know that time was up by the second incident! On the morning following, almost immediately after being let out, she ejected some fluid from the crop, doubtless some secretion of the nature of Pigeon's milk, which, owing to the failure of the eggs to hatch, she was unable to dispose of in a natural manner.

Although these ten eggs had a family likeness, some differed from others in size, shape, and arrangements and size of spots, teaching a lesson how dangerous it is to draw conclusions as to eggs having been laid by the same or different females according as they may happen to be alike or otherwise; nevertheless it would be unusual for so many eggs, if laid by a wild bird, to differ so much, although of course variations are common enough in the wild state also.

As I did not see any of these eggs when fresh, I am a little doubtful as to what the normal shades of the colours may be. The ground colour of some were whitish, of others cream-white, of others blue-white. The spots and blotches on some

were almost dun, on others faded brown, on others again reddish brown. I think that the latter would be the more usual colour. The bodies of most of the eggs were faintly speckled, the spots being mostly gathered at the thick end, running into and joining one another, sometimes forming a circle with a clear centre.

Amongst the last batch was one egg of unusual size. In olden days, having been brought up amongst the birds, in my simplicity, I should have called this an ordinary double-yolked egg, as I would have called an abnormally small egg a yolkless one. But in these enlightened days such childish ideas have to be put away, and I must now recognise in this large egg the zygodactyle foot, and deposit it in my cabinet amongst my Cuckoos' eggs accordingly.

On July 11th, I detected a mounted male *Phonipara pusilla* in one of the glass cases at the Natural History Museum at South Kensington. It was described as a Yellow-throated Seed Finch from Mexico. It was the only specimen on view of the genus *Phonipara*, but was in the company of *Volatinia jacarina* and *Spermophila lineola*, both of which were also called Seed Finches, a name which, as regards these two, is not generally accepted. In the Zoological Society's List, not one species of the genus *Phonipara* is called a Seed Finch, the name being reserved in the List for the genus *Oryzoborus*. Considering that the Finches generally, and many other birds, eat seed, it is not clear to me why a select few should be styled Seed-eaters and Seed Finches.

For *Phonipara pusilla* (little), the name of either Little Finch, or Yellow-throated Finch, if not already appropriated, would do very well.

THE FEEDING OF PARROTS.

By the Hon. and Rev. F. G. DUTTON.

Since writing my last notes, two rather rare Amazons have come into my possession, *Chrysotis augusta* and *C. bouqueti*. It may be well to say something about them, before I go on to the next species which will be *Pionus*. But I wish to see more of them before I say anything about their ways, and there is a subject of vital interest to all parrot keepers which I might say something about, and that is the question of food.

In this matter it must be understood that I am simply giving the results of experience—my own and others'. Though

I have kept a good many parrots, I know too little about them to form theories.

But it will be obvious to anyone who reflects that a race of birds inhabiting such different parts of the world as Patagonia and Mexico, the Amazons and the Andes, the Himalayas and New Guinea, Australia and Bengal, are no more likely to be suited by one diet, than they are by one temperature. A cockatoo will thrive in a temperature that would kill a grey parrot.

When I buy a bird, or acquire it, I like to know what it has been fed on. If the bird is a picture of health, it doesn't matter how unsuitable I may think the food, I go on with it. One of the best conditioned greys I ever saw, had nothing but hard maize and water. Most parrots are indifferent to maize and will not eat it. And even if the bird is plainly being fed wrongly, and the food is not suiting it, I should not change all at once. Birds will very often refuse to touch food, if it is strange to them. I sometimes think it does not enter their head it is food, and they are not like man, who will eat anything to stay the pangs of hunger.

Perhaps—I hope it is so—that birds do not *suffer* as man does when he starves. I gave away some linnets once that I had reared by hand; I had fed them on rape: they were given canary seed. They *could* have cracked it perfectly, but they died without making any effort to do so. Therefore, if you want to change a bird's diet, do it gradually.

Some people like to forbid bread and milk, others sop, others hemp. I have not been able to do so myself. I do not like bread and milk. I do not care about boiled maize. Both are apt to go sour, and I think bread and milk likely to give dysentery, however sweet it may be. But I *had* to give it to my Macaws, and boiled maize: they required it and throve on it. A friend had a *Pionus violaceus* from Guiana. It was very tame, but it always seemed to be wanting something, and it was not thriving. This was before I had kept any Macaw, and thought bread and milk an abomination. Something, I forget what, led me to try feeding the bird with bits of bread and milk from my fingers. That was clearly what it wanted, and from that day it was contented and throve. But there came a day when it, unlike the Macaws, outgrew its bread and milk, and took to seed. I have once or twice seen parrots in the bird shops young enough to be still calling to be fed. Those I should certainly feed with bread and milk for a time.

I should perhaps have done better to have made my

remarks as to suitable food after each species. In Macaws, as I have said, I found formy scarlet and yellow, my Hyacinthine, and my blue and yellows, bread and milk in one tin, boiled maize in another, and canary and hemp and (with a good deal more hemp than canary), peanuts in a third, suited them very well. My Spix, which is really more a Conure than a Macaw, will not look at sop of any sort, except sponge cake given from one's fingers, only drinks plain water, and lives mainly on sunflower seed. It has hemp, millet, and canary, and peanuts, but I do not think eats much of any of them. It barks the branches of the tree in which it is loose, and may eat the bark. It would very likely be all the better if it would eat bread and milk, as it might then produce some flight feathers, which it never yet has had. But I expect it would not eat any sop, even if I gave it nothing else.

Now Conures I do not know much about, but I should, unless there were special reasons for something different, give them only water, canary, hemp, millet and oats, and peanuts. Some recommend fruit, but I find parrots care very little about it. My two rare Amazons, I believe, were largely fed on banana in Dominica. *Augusta* will eat banana, but *Bouqueti* will not look at it. They take the fruit, bite a bit, and then throw it down. I find it difficult, too, to make parrots eat strawberries. They evidently think them messy, for they shake their heads violently over them when they taste them. I have known parrots like them, but with me such parrots have proved the exception.

To *Brotogerys* I should give millet, canary and oats, but Mr. Phillipps will perhaps say what they ought to eat, as he has kept many of them. I am not sure he has not told us, but away here at Tarasp, I cannot refer to my Magazine.

Pionus and *Chrysotis* may have sunflower, hemp, canary, millet, and peanuts, with rather more hemp than the others. I always give mine bread and water sop. They do not eat more of it than they want. If my experience is any guide, and I have kept not a few parrots, no one need have the least fear of its upsetting their digestions, or its leading to feather picking. I have had a good deal to do with feather pickers, because I have bought them, and borrowed them, to see if I could cure them. I think I can say I have stopped one case, and that is about all the success I have had. I have once—in all my experience of parrots, now extending over a period of 45 years—seen a case of feather picking that I think was due to improper feeding. The

bird, a Salmon-crested Cockatoo, appeared to tear out its feathers, and that certainly looked as if it were a case of irritation. Possibly—I do not know—a case of a Uvœan Paroquet I had which *ate* its feathers—at least they went, and were not in the cage—may have been from something lacking in its diet, which it missed and tried to supply with its feathers. I had also a grey which moderately plucked itself before it laid, and that may have been a nesting instinct; and the case which I stopped, I stopped by changing from a cage to the aviary, and back again to the cage, when I saw any signs of the habit. But in almost all cases the trick, for it is that and nothing else, is learnt while the bird is preening its feathers. As it passes them through its beak, it one day begins to nibble, and then you can hardly ever stop the trick. Even turning them loose in the open air will not stop it. I had a Gang-Gang Cockatoo from the Zoological Gardens I tried to cure, and by supplying him with plenty of wood, green and dry, I got him to leave his breast and back alone. I turned him loose in a tree, and I thought if he would only let his flight feathers grow, so that he could fly, I should be able to restore him a decent bird. His flights began to grow, and just as I was hoping he might get enough to fly with, he bit them all off in one or two days. Then I pulled out all the stumps, and hoped when they were all growing evenly, he would let them alone. Not a bit of it. Just as they were getting a hopeful length, they all went again. It is possible that putting paraffin on the feathers every day might have stopped it, or still more certainly a leather collar fastened round his neck, and sticking out far enough to prevent his getting at his feathers. But it seemed to me cruel to keep a bird from touching his feathers for months. The bird was not tame enough to let himself be caught willingly. With a very tame bird one might take the collar off once a week, spray him, and after he had arranged his plumage, put it back. But, as all authorities say, prevention is better than cure. A parrot is as restless as a monkey, and if you don't want him to pluck himself, give him plenty to do. I daresay modern cages have much to answer for. In old days the binding wire was never soldered, and the birds were always trying to unfasten it. In modern cages they have nothing to take hold of, by which they could get it off. One might suppose that two birds together would amuse each other, and that where two were kept in one cage, they would not acquire this habit. But they will, just as a child in the nursery will bite its nails, no matter how many children it may have to play with. If anybody likes to hold his opinion that it is from irritation caused by

wrong feeding, I have no wish to disturb their belief. But the gentle nibble, nibble, nibble, shows me that *my* parrots certainly do not do it from irritation, but to amuse themselves.

To return then to our feeding.

All the African Parrots, *Psittacus* and *Psephenus*, may be fed as Amazons are fed. I should not object to their having a dry bone to pick to pieces, if they liked it. It is not as good as wood, but if no meat is on it, it will be better to let the bird have it, than to give it nothing to bite to pieces. However, I must confess that I have never been able to get any parrot to touch a bone.

The smaller parrots and the paroquets I give less hemp. For them I think equal parts of hemp, millet and canary best. Cockatoos I feed as I feed grey parrots, and all Australian paroquets need little hemp. Budgerigars want none.

The difficulty of feeding correctly comes with Australasian and the Spice Islands parrots.

The New Zealand parrakeets (*Cyanorhamphus*), I feed as I do the smaller Australians. *Stringops* I have never had. I was offered one at a high price, but as Sir W. Buller says that even in New Zealand they have not been kept alive longer than eighteen months in captivity, I declined the offer. *Nestor* I have never had, but Mr. Fulljames told me he parted from his *Notabilis*, because it was so messy a feeder. The late Mr. Bartlett assured me that when he gave *Nestor notabilis* (the sheep eater) mutton chop and Indian corn, it left the mutton chop for the Indian corn. The form of their bill would almost lead one to suppose that they wanted much the same food as the Lories. But as it is a fact, that Blue Mountain Lories eat honey in the wild state, and yet canary seed and millet suit them best in captivity, I do not see why the *Nestors* should not be content with seed.

Polytelis I have never kept, but I believe they want a certain amount of soft food.

I have never myself been able to get the true Lories, *Eos* and *Lorius*, on to seed, but as far as health is concerned, I found the following mixture suit them perfectly. Take a dried fig, pour boiling water over it, let it soak, and then mash it up with a bun. It need not be given too moist. If ever I had the luck to get the tiny *Coriphili* from the Fiji Islands, I should try that.

The species that beats me is *Nymphicus*. To look at their bills you would say they were seed-eaters; but I bought a lot of eight once, which *looked* healthy enough. They all died, one

after the other, of digestive troubles. And I have had other specimens, which I have kept for twelve months or so, but then they have died. They have never been kept very long in the Zoological Gardens. I cannot but think they would live longer, if we knew how to feed them correctly.

I think I have now run over the kinds of parrots I have had, and that are most likely to come into the hands of my readers, but if any particular difficulty should arise, I am always willing to do my best in the way of advice. But I can only say what I have said before, that the longer I live, the more the smallness of our knowledge about birds' wants and birds' diseases strikes me.

[Since writing the above, Mr. Farrar has told us that he gives his Barrabands nothing but hemp and canary. I certainly have always found bread and water sops a great help to the old birds when they are rearing young.—F. G. D.]

THE MASKED PARRAKEET.

(*Pyrrhulopsis personata*).

By E. E. SMITH.

I do not think this Parrakeet has been mentioned in the *Avicultural Magazine*, so I thought a few remarks on this eminently handsome and interesting bird might be worthy of a place amongst the series of "Rare Foreign Birds" which have appeared at various times; though not so rare as some which have been described, it is a bird which is rarely offered for sale.

The size of *P. personata* is about equal to the well-known King Parrakeet, though possibly a shade longer. The plumage is for the most part bright green, the feathers being of a hairy texture and with a lustre approaching that of the Resplendent Trogon; the face to the back of the eyes is black, so are the beak and tail; the feet are very dark grey, and the flight-feathers of the wings dark blue; the eyes bright orange, and the belly yellow, deeper in colour near the vent.

This bird has the power of dilating and contracting the pupil of the eye, which it always does when excited. The specimen in my possession is very tame, and a great favourite. I feed him on hemp, canary, and oats, with all sorts of fruit, and plenty of green food; he is very fond of twigs of various trees with the bark left on.

For the most part he is a very quiet bird; but at dusk every evening he hangs head downwards from the top of his cage and gives several hoarse Raven-like croaks, so startling

that one's hair almost stands upright with the shock : apart from this there is nothing objectionable about him, and he will stop directly he is spoken to.

He holds everything in his feet when eating (generally the left foot) and he is a remarkably good climber, for he will walk up the side of his cage holding on with his feet alone, and carrying a piece of orange or other fruit in his beak.

I should like to know if anything has been discovered regarding the sex of this Parrakeet, as, according to Dr. Greene's "Parrots in Captivity," that gentleman supposed *P. splendens* to be the female, because no female of *P. personata* or male of *splendens* had been recorded ; though in his description of the latter he abandons the theory, and describes the female of *P. splendens*.

The Masked Parrakeet is a native of the Fiji Islands, and, in my opinion, a beautiful and most desirable bird.

THE FLAME-SHOULDERED MARSH-TROUPIAL.

Agelasticus humeralis.

By ARTHUR G. BUTLER, Ph.D.

This bird is a native of Cuba, and is nearly related to the Yellow-shouldered Marsh-Troupial. As I was called to account for altering the trivial name of the Spotted Pardalote for the benefit of aviculturists, I do not doubt that I shall be severely reprimanded for applying the generic name proposed by Cabanis to the group of yellow-shouldered birds : I will therefore at once explain that, as an aviculturist, I am entirely opposed to the union in one genus of the thick-billed, extremely wild forms typical of *Agelaius*, with the more slender, longer-billed and confiding forms for which Cabanis proposed the name of *Agelasticus*. The latter are far more nearly related to the Hang-nests in their method of feeding ; for I find that they do far better (in captivity at any rate) if fed precisely like Hang-nests than as I first treated them—on insects and seeds, and in their form they much more closely resemble true Starlings, than the red-shouldered and brown-headed forms of the genus *Agelaius*, all of which are considerably more like Cow-birds.

I had two males of the common Yellow-shouldered Marsh-Troupial in 1894, and fed them chiefly on seed, giving a little soft food now and then but no fruit : neither of them lived many months.

Early in June of the present year, I received a letter from Mr. Maximilian Praschkauer, of the well-known firm of bird-food importers, asking me if I would be willing to accept a rare "Oriole," which had been his wife's pet for the past ten years, and had accompanied him and his wife wherever they journeyed. This bird was purchased in America, where at the time he was travelling on business; his wife had become so fond of it, that the constant anxiety lest it should fall a victim to some prowling cat, while she was out for a walk or on a visit, at length convinced her that she would be happier if it were in the hands of someone, who would take care of and protect it against injury.

I found that this bird had been fed chiefly upon moistened sponge-cake and fruit, even mealworms having been only given once or twice, as its mistress was afraid lest they might prove injurious.

The bird came into my hands about the middle of the month: it had up to that time, been kept in a waggon-shaped brass-wired cage with receptacles for food and water at each end. This cage was about fifteen inches in length by ten inches in width, therefore it did not offer much space for exercise; certainly none for flight. I transferred it, or induced it, by the offer of a mealworm, to transfer itself to a flight-cage, three feet six inches in length, and about eighteen inches wide: it flew up to a perch, but was afraid to descend to the floor of its cage, until I gave it a spider, which it carelessly dropped and could not resist the temptation of recovering it; it therefore hung from below the perch, first by both feet, then by one, finally letting go and alighting on the sand: it however took several days to acquire perfect confidence in the use of its wings.

At first I supposed this bird to be merely an oddly coloured male of the Yellow-shouldered Marsh-Troupial, but on examining the skins at the Natural History Museum, I discovered that no such variation occurred in that species: I therefore looked at the allied species and recognized my bird under *A. humeralis*.

Dr. Sclater describes the wing-coverts as yellowish-brown, but this conveys the impression of brown washed with yellow, whereas the real colour is satiny ochre-yellow with a faint suspicion of a sienna brownish wash over it (*c*). When the bird stands up high, a few small bright yellow feathers become visible at the back of the thighs, a character not recorded either in this species or *A. thilius*; the under wing-coverts are pale creamy sulphur-yellow. As compared with *A. thilius*, with its

(*c*). Russ describes the coverts as reddish yellow.

bright narcissus-yellow shoulder, the present species might be regarded as having a brownish shoulder, but there is very little brown in it, even in the dullest-coloured examples.

Unlike the Yellow-shouldered bird, the song of which (as I have noted in my article on the species in the *Feathered World*,) reminds one strongly of the sound made by working the handle of an old iron pump—"Chinker-on-king-tschwee," the present species has a distinctly pleasing song; not unlike that of a Canary, as a Starling might be expected to sing it if taught; it is a little more reedy in character than a Canary's song, and has a few somewhat harsh notes in it, but altogether I prefer it to the performance of the finch.

I don't know whether it is because my example has been allowed to have his own way in everything, but he is certainly not a polite bird; he not only cries for everything which he fancies may be good to eat, uttering a peevish *waa* (with the tune of the word *ware* less the *r*) but when he is offered the dainty, he repeats the sound, as if he were abusing you for giving it to him.

Since the bird came into my possession, he has distinctly improved in glossiness of feather; he bathes every day and takes plenty of exercise: although he by no means dispises cock-roaches, he certainly prefers mealworms: when eating preserved yolk, he generally dabs it two or three times into banana to soften it before swallowing it; orange appears to be his favourite fruit, but a thin slice of apple is much relished.

I have given the name "Flame-shouldered" to this bird because I can discover no other: it has never visited our Zoo, but in Germany it was first imported in 1887, and was successfully bred in 1888. Russ calls it "The Gregarious-Starling with fiery-red wing coverts," but that is too long for a trivial name and is incorrect.

Gundlach gives the following account of its wild life:—"Common, and lives less in the forests than in the borders of the woods, and other places where there are trees. In the autumn they unite into communities, which at that time make havoc of the millet- and rice-fields. Later in the winter they seek their food in the plantations, feeding in the pig-sties or the drying-trays used for sugar. Also they search for nectar in the larger flowers of trees. In the afternoon they assemble in considerable numbers on lofty trees or bamboo cane to rest, and there each of these birds from time to time exercises his monotonous voice, so that from the multitude of these cries, a great but not unpleasing sound

arises. At the least alarm they are instantly silent, but as soon as this is comprehended, they again commence their noise. Occasionally they are combined with other species of the family, and then the concert produced by all together is even more complete.

"This Starling nests in April and May, constructing its nest on slenderly branched sites on the trees, or on the leaf-sheathes of palms, or between the large leaves of the *Bromelias* living as parasites on the trees, of dry plants, hair, feathers, etc. The laying consists of four eggs."

Thienemann describes the eggs as somewhat elongated, not symmetrical, grey-greenish-white, sparsely dotted with grey and black-brownish points, which are wanting at the apex, but numerous at the base, which is covered by a large brown patch and small black-brown dots. Length 22 mm. breadth 14 mm.

The nest which was built in captivity, was so deep that only the bills of the young birds could be seen, so that the nestling plumage could not be described: but five days after leaving the nest, the young birds chiefly differed from their parents in their inferior size and yellowish wing-coverts.

THE IMPORTATION OF AUSTRALIAN BIRDS, AND OTHER NOTES.

By GEO. CARRICK.

The actual difficulties to be surmounted on ship board during the transit of birds from the Antipodes are many and varied, and probably a rough sketch of the average trip might interest not a few. Having selected your stock and received the same on board, all seems well while on the coast with nice warm weather and plenty of sunshine, but after leaving Adelaide and clearing Kangaroo Island, the land dips to the North West, while the ship keeps on her Westerly course and immediately plunges into the Great Australian Bight with its very changeable and boisterous weather, the thermometer invariably dropping often 15° to 25° in one night; the sky becomes overcast, heavy weather sets in, and the ship starts plunging and rolling heavily; the cages and boxes are stacked away as snugly as possible, but always in some corner where the only light they have is through a 10in. or 12in. port hole, which, with every other roll of the ship, is under water; so little light penetrates the cages, that

one is often glad when dusk sets in and the electric light is turned on to give the birds sufficient light to see their food. Occasionally too, to add to your difficulties and to the discomfort of the birds, one of the boxes breaks adrift and you find it, generally, face down on the floor, with sand, water, and seed in a pulp, sticking all over the cage and sand-tray at an angle of 45° in the box. This state of affairs often lasts from three to five days. After rounding Cape Lewin, you meet with more genial weather and have the stock removed to some sheltered spot as near the open as possible, as it is yet too cold to take them right out on the deck, especially Gouldians, which, when freshly caged, I find the most sensitive to cold; they will rarely stand a less temperature than 75° ; at 70° they get ruffled up with their head tucked under the wing and drop off rapidly. After a few more days the weather gets quite warm and it is perfectly safe to have the stock transferred to the open, and needless to say the birds thoroughly enjoy the warmth, fresh air, and daylight. In a week's time you begin to compliment yourself on the condition of the stock, when you are plunged into the stifling moist atmosphere of the Indian Ocean, from thence to the Gulf of Aden and Red Sea. During this period Gouldians improve daily, but most other specimens feel it very trying, gasping all day for breath and resting on the perches with outspread wings. Towards sundown they simply go mad with joy and eat their evening meal ravenously. They are now always left on deck over night (my boxes are all double fronted, in space between each wire front for protection against rats). During the Mediterranean passage they pick up wonderfully and by the time they reach home (should the weather from Gibraltar to the Channel be fairly mild) are in grand condition. Sometimes boisterous weather is met with from the Portuguese Coast to the Thames, when a repetition of the Australian Bight difficulties occurs, but on a modified scale, as there is more space on the ship, consequently more light and air, and to the happy survivors more cage space.

As to food and general treatment during the voyage, Gouldians, Bichenos, Crimson Finches, Grass Finches, etc., have canary seed and Indian millet in separate boxes, spray millet and cuttlefish, with sea sand and finely ground shell on cage bottom, fresh daily and thoroughly cleaned out every second or third day, outside bath on cage daily. With this treatment I find they do exceptionally well with me and always arrive home clean and in grand condition. Parrakeets have the usual

mixture of canary, hemp, millet, oats, and crushed maize, according to variety. Lorikeets always boiled bread and milk (Nestle's condensed) first thing daily, which generally lasts them two to three hours; canary seed remainder of day. On this diet I find Swainsons' and the Scaly-breasted do very well, but the Musky Lorikeet and some others will never touch the seed, so have fruit (bananas or ripe pears) instead when procurable. For insectivorous birds, I have no hard and fast rule, their treatment is so variable, but for the general stock food I use that recommended by Mr. Fulljames in Vol. iv, pages 44-5, with fruit or mealworms where necessary. I take a particular delight in getting my birds into, and landing them in faultless condition when possible, and generally succeed, as very few die soon after importation, and this considering I always carry most delicate and rare stock.

With reference to Mr. Fillmer's article on Wood Swallows in the December number of *Avicultural Magazine*, probably that gentleman will be glad to learn that his conjecture was correct in thinking they were hand reared; I reared them from the nest, and perhaps he will be more surprised to learn that the parents are the pair first possessed by Mr. Fulljames and exhibited several times by him.

In the March number of Magazine, Mr. Farrar has an article on the Lunulated Honey Eater, in which he principally refers to the diet. Now, I have imported many Honey Eaters, including the Warty-faced Yellow-tufted (*Ptilotis auricomus*) also *P. lewinii*, the Bell bird (*Manorhina melanophrys*) Black-capped (*Melithreptus atricapillus*) and the Garrulous. I tried them all on pure honey which they one and all took to greedily, refusing to taste any other food while honey remained, but never found them do well on it; besides I found it impossible to keep the birds clean if kept in cages. The Larger Honey Eaters are easily kept and will partake of any good insectivorous food with addition of fruit and mealworms.

The Smaller Honey Eaters are much harder to cater for, but I find they do fairly well on bread and milk-sop sweetened with honey. I shall be glad to hear at the end of the season how Mr. Farrar succeeds with his Lunulated Honey Eaters in his garden aviary.

TREATMENT OF NEWLY-IMPORTED FOREIGN BIRDS.

By A. SAVAGE.

A critical period of a foreign cage-bird's life is, undoubtedly, the first month after its arrival from its native country. Many have had anything but "a pleasant trip over"—the state in which they arrive shows it—and nearly all are *at least* much fatigued by the journey, and require special care the first few weeks they are in the hands of their owner, more so if rare or valuable birds. It frequently happens that a bird, which seemed in good health when in its cage at the dealer's, goes wrong shortly after it comes into the possession of the purchaser. One gentlemen told me, not long ago, when speaking on this point, "they come to me to die." It is a great mistake to take a newly-arrived bird home and turn it out *immediately* into a large aviary containing other birds, especially if an outdoor one and the weather is bad—but this, it is to be feared, is often done. A new arrival requires rest and quietness and, nearly always, a little nursing. In a large aviary with other birds it cannot get this, consequently, cage-life, *alone*, for the first few weeks is necessary. A bird in a cage can be closely watched and treatment given as soon as it seems to be going the wrong way. The complaints a newly-imported bird most frequently suffers from are, probably stomach, bowel and lung disorders, and if it is in this way afflicted, and not properly looked after, it soon goes over to the great majority. Symptoms of these ailments—a glassy eye ruffled feathers, drowsiness and panting—"beating time, as it were, with its wings and tail, to its breathing." We have a preparation, on this side of the Channel for stomach and bowel disorders, which has rendered me good service on more than one occasion, viz. : gentian, cinnamon, anise, and ginger, all in powders, mixed in equal parts (say, $\frac{1}{4}$ oz. each) and a pinch dusted over the seed given to the bird every morning, till it is better. For lung complaints, I generally give Tibbs' Canaradyne. (This is not intended as an advertisement—other preparations may be good, but I have found the one mentioned very useful).

For over twelve months I had a fine cock Rufous-tail Finch without a mate, and, a few months ago, saw a cock and two hens in a bird-shop. I purchased the odd hen; she appeared in good condition, but I put her, nevertheless, into a small indoor aviary with the cock. In less than a week, the glassy eye became visible, ruffled feathers were to be seen, and the "beating time"

business, as previously mentioned, began. She was evidently ill, and getting into a critical condition. I treated her as above—ten drops of Canaradyne, daily, in half-a-wineglass of water (no other water given), and dusted the seed over every morning with a pinch of the powder-mixture referred to. In a couple of weeks she was much better; she eventually moulted and is now in the best of health, flying about in a large outdoor aviary with a number of other birds. She looked well enough to go there the day I bought her, but had I put her there at first, I should probably have lost her.

It no doubt gives a little trouble to cage birds alone for the first few weeks after their arrival, but one is well repaid for doing so, especially if they are rare or valuable; it prevents losses in many instances. All the newly-imported birds I buy, I cage alone for a few weeks, and watch their progress—Parakeets as well as small birds.

The powder-mixture can also be used for stomach and bowel disorders in fowls, pheasants, and partridges—a pinch per bird per day, mixed with the soft food in the morning. Or, if no soft food is given, a few drops of salad-oil can be put on the grain given at the morning meal; add the powder to that, and well mix up. The oil makes the powder adhere to the grain, and in eating the grain the powder is taken with it.

ZOO NOTES.

By J. LEWIS BONHOTE.

XI.—JULY.

July	5.	Yellow-cheeked Amazon— <i>Chrysotis autumnalis</i> Honduras.	Parrot House.
		2 Greater Black-backed Gulls— <i>Larus marinus</i> Bred in Menagerie.	Gull Pond.
		Herring Gull— <i>Larus argentatus</i> " "	"
"	6	2 Crimson-crowned Weaver Birds— <i>Euplectes flammiceps</i> W. Africa.	Western Aviary.
"	9	2 Grey-headed Love Birds— <i>Agapornis cana</i> Madagascar.	Parrot House.
		Cuckoo— <i>Cuculus canorus</i> British Isles.	Western Aviary.
"	12	Little Bittern— <i>Ardetta minuta</i> Europe.	Fish House.
"	16	Nutcracker— <i>Nucifraga caryocatactes</i> Europe.	Western Aviary.
		Senegal Parrot— <i>Pæocephalus senegalus</i> W. Africa.	Parrot House.
"	17	2 Larger Hill Mynahs— <i>Gracula intermedia</i> India.	Western Aviary.
		Missel Thrush— <i>Turdus viscivorus</i> British Isles.	" "

July 18	Guira Cuckoo— <i>Guira pirogus</i>	Para.	Western Aviary.
„ 19	2 Chukar Partridges— <i>Caccabis chukar</i>	India.	„ „
	Cuckoo— <i>Cuculus canorus</i>	British Isles.	„ „
„ 23	2 Crested Pigeons— <i>Ocyphaps loquax</i>	Bred in Menagerie.	„ „
	Spotted Pigeon— <i>Columba maculosa</i>	„	„ „
	4 Vinaceous Turtle Doves— <i>Turtur vinaceus</i>	„	„ „
	Yellow-bellied Liothrix— <i>Liothrix luteus</i>	India.	Tortoise House.
„ 25	2 Common Blue Birds— <i>Sialia wilsoni</i>	N. America.	Western Aviary.
	2 Chaffinches— <i>Fringilla cœlebs</i> .	British Isles.	Parrot House.
	Siskin— <i>Chrysomitris spinus</i>	„ „	„ „
	Lesser Redpoll— <i>Acanthis rufescens</i>	„	„ „
	2 Linnets— <i>Acanthis cannabina</i>	„	„ „
	Corn Bunting— <i>Emberiza miliaria</i>	„	„ „
„ 26	Levaillant's Amazon— <i>Chrysotis levaillanti</i>	Mexico.	„ „
	4 Red-banded Lorikeets— <i>Trichoglossus rubritorques</i>	N. W. Australia.	„ „
„ 28	2 Sulphury Buntings— <i>Emberiza sulphurata</i>	Japan.	Western Aviary.
„ 30	2 Greater Vasa Parrots— <i>Coracopsis vasa</i>	Madagascar.	Parrot House.
	3 Glossy Ibises— <i>Plegadis falcinellus</i>	Bred in Menagerie.	Great Aviary.
„ 31	5 Barn Owls— <i>Strix flammea</i>	Europe.	North. Aviary.
	Silky Cow Bird— <i>Molothrus bonariensis</i>	S. America.	Western Aviary.

My notes for this month will, of necessity, be rather short, chiefly because I have been unable to visit the Gardens, and also because the list of arrivals gives no hint of any family which might furnish me with an excuse for an article.

We may notice the list of breeding birds this month, which, although of the ordinary character, is slightly larger than last year's; the Great Black-backed Gulls have succeeded in rearing their brood this year; and three species of Pigeons; the Glossy Ibises have, as usual, brought off their young.

Two species are new to the collection, viz.: the Red-banded Lorikeets from N. W. Australia, and the Sulphury Buntings from Japan; but neither of them call for any special notice. The only other bird to be noted is the Silky Cow Bird, which is an inhabitant of S. America, and resembles in its habits our common Starling, accompanying the large herds of cattle which wander over the plains of that Continent.

CORRESPONDENCE.

ORNITHOLOGY *versus* AVICULTURE.

SIR,—I have said all I have to say in support of my proposal to extend the scope of the Magazine. The idea seems to have many enemies and no friends but myself. If there are any in favour of it—let us hear from them. If there are none, the subject had better drop.

I should be glad if Dr. Butler would have the kindness to point out when and where I endeavoured to “persuade” anyone “that aviculture and the fancy are one and the same thing.” Until he has done this, I think that the less he says about “misrepresenting facts,” the better. I am in no danger of imagining “aviculturist” and “fancier” to be synonymous—neither do I think, as some of us appear to do, that “fancier” and “fool” are two names for the same thing.

In the first number of this Magazine, an aviculturist was defined as “a person interested in the keeping and breeding of birds.” I object to any narrowing of the meaning of the term.

This correspondence has brought to light a tendency among a section of the Council to confuse aviculture with ornithology, to exalt the scientific side of our pursuit at the expense of the practical, and to subordinate the interests of the Society to the supposed wishes and prejudices of the few members who are scientific ornithologists. This appears to me to be a much more serious and important matter than the adoption or rejection of my “proposal,” and if this tendency grows and develops, there will soon be no room in the Society for such an unscientific aviculturist as

HORATIO R. FILLMER.

SPRAY MILLET.

I hasten to correct my answer to Mrs. Keith Maitland’s question in the *August Number*. There is, I find, a very small Indian Millet, much finer than the common Spray or African Millet. Mr. J. Abrahams has sent me a beautiful sample of it. It can, I presume, be obtained from him.

O. E. CRESSWELL.

GREY SINGING FINCHES.

SIR,—I have had Grey Singing-finches affected with the disease described by Miss Husband—also the European Serin-finch. It is, in my experience, a disease almost peculiar to the genus *Serinus*, or at any rate one to which they are more liable than other birds. Not being a doctor, I can say nothing as to the cause or nature of the malady—but it did not seem to be contagious.

HORATIO R. FILLMER.

TREATMENT OF RUSSIAN BULLFINCH.

SIR,—Will you kindly advise me how to treat my cock Bullfinch (Russian); he has been suffering from diarrhoea for the last ten days, with loss of appetite, sitting moped and ruffled. I gave him two doses of castor oil, with an interval of three days, and fed him on bread and milk, soaked crushed rape seed and a few ants’ eggs. Now I have added a little crushed hemp seed mixed with the rape, and some of Abraham’s egg, as he seemed in want of more nourishment and was much better and more lively, but still breaths rather quickly, and I observed yesterday had lost the feathers

round both his eyes, having bald patches, otherwise he is not moulting. I want to know whether he might have green food, and when he may return to canary and rape seed, his usual food. The ants' eggs were the first things that seemed to do him good, and his appetite is much improved and the complaint lessened to-day for the first time.

Shall be much obliged for your advice.

M. W. E. WARD.

The following reply was sent to Mrs. Somerset Ward:

In reply to yours of 7th inst., your Bullfinch appears to me to have been suffering from a cold, though he seems to have got over the worst. Feed on a generous diet *i.e.*, canary, rape, and a little hemp, but when he has hemp let him also have green food, groundsel, chickweed or lettuce. I should also continue for a time, ants' eggs and Abrahams' egg, or ordinary hard-boiled egg, and gradually drop it off. Later on, when privet berries come in, I should let him have plenty of them if convenient, as they form a large part of Bullfinches natural food at that time of year. See that the cage is in a fairly regular, though not necessarily high temperature and that it is not placed in a draught.

J. LEWIS BONHOTE.

LIOTHRIX PLUCKING ITSELF.

SIR,—I should be thankful if you could give me any information as to the cause of my hen Pekin Robin's death.

A pair of these birds lived in perfect health for four years, and were in show plumage and condition. Suddenly the hen began to tear out her feathers, especially on her left side, till her body was bare and raw. At the same time, she was evidently suffering severely. She was at once isolated, kept perfectly quiet, and given an increase of insect food, but she never ceased tearing at her feathers, and died within two days from the first attack. Her skin was perfectly clean, and free from any insect trouble: indeed both birds are such frequent bathers, and keep themselves so clean, it would be difficult for anything of that sort to gain a footing. They have never attempted to breed. Their food is the usual mixture, with mealworms, flies, caterpillars, and fruit in season.

If you can tell me the cause of the disease I should be thankful, also for any advice as to its treatment in case it should recur. The birds are kept in an unheated room.

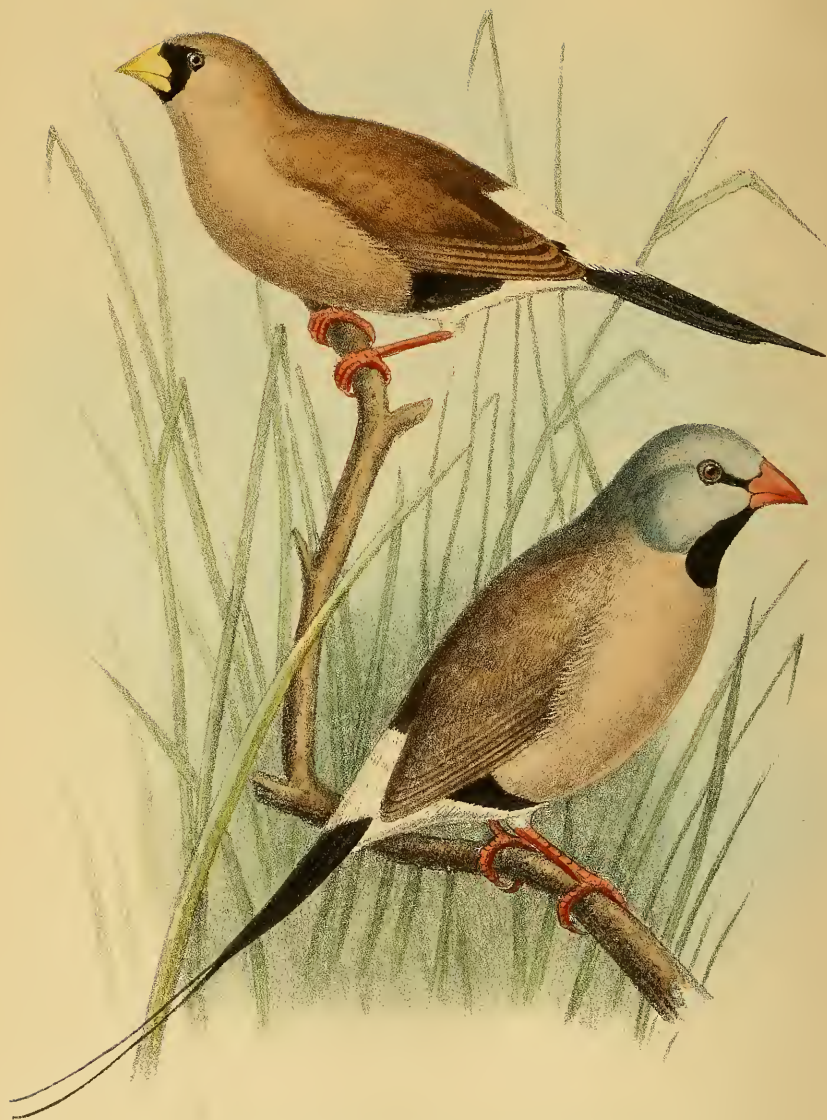
E. F. CHAWNER.

The following answer has been sent to Miss Chawner:

Feather-plucking is due in most cases to irritation of the skin, the only exception I know of is in the case of the Cardinals, the males tearing out their breast-feathers when courting, apparently to show off to the hens; but, possibly, as with Canaries, to provide material with which to line the nest.

Liothrix is subject, more than most birds, to liver trouble; which is liable to produce a hot irritable skin. The best remedy would be to commence with a mild purgative—about six grains of Epsom salts in the drinking-water for one day; on the following day give fifteen drops of laudanum and a teaspoonful of dandelion-juice (*taraxacum*) in the drinking-water; then, for a week or so, give the dandelion-juice without the laudanum; and complete the cure by about ten drops of tincture of iron and quinine in the drinking-water for several days.

A. G. BUTLER.



MASKED GRASS FINCH.
LONG-TAILED GRASS FINCH
Poephila personata.
" *acuticauda.*

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THE LONG-TAILED GRASSFINCH.

(*Poephila acuticauda.*)

By D. SETH-SMITH, F.Z.S.

The subject of this paper is so well known now, and so closely resembles, both in habits and plumage, the familiar Parson-finch (*P. cincta*) that I fear I can record nothing concerning it that is new to the majority of our readers.

Our esteemed fellow-aviculturist, Mr. R. A. Todd, was, I believe, the first to breed this beautiful species in England (vol. III. p. 210); and probably since that time a great many have been reared by other members, for it seems to reproduce its kind in captivity quite as readily as the Parson-finch; and I believe several aviary-bred specimens were exhibited at the Palace and elsewhere last year. Like most of the Grassfinches the sexes are identical in plumage, and I know of *no certain* way of ascertaining the sex of a given bird. I believe, as a rule, the males are slightly the larger birds and the centre tail-feathers are somewhat longer than in the females. I have heard also that the white tip to the lateral tail feathers is only to be found in the females; but this is certainly not always the case, as some undoubted males in my possession have this mark, although it is certainly more pronounced in the females; possibly, however, it may be absent in very old males.

I have found this species quite trustworthy in a mixed collection, although its temper is certainly not of the sweetest type, and it knows how to fight well enough when other birds intrude too near to its nest.

The song, which is not often uttered, appears to me to be absolutely identical with that of its congener the Parson-finch, with which species it interbreeds freely enough; and I think it most probable that the young hybrids would be perfectly fertile amongst themselves or with either of the parent species, so closely do the two resemble one another in all their ways. Mr.

Phillipps has this year reared some of these hybrids from a male *P. cincta* and a female *P. acuticauda*, and he will be able to prove in due time whether these will breed.

The Long-tailed Grassfinch is a very rapid flyer and is a particularly graceful bird; I hardly ever have seen a specimen in really rough plumage; it seems always to keep itself sleek and trim.

The colour of the bill seems to vary somewhat in this species, and I have sometimes thought there must be two distinct forms. Some specimens have the bill orange yellow, in others it is quite a reddish orange, and certainly the ones with the yellower bills seem to be the largest birds and to have the best developed tail-feathers. That this variation in the colour of the bill has nothing to do with sex I am perfectly satisfied, for I have at the present time undoubted pairs of both varieties, and I am also satisfied that age has nothing to do with it.

I have found egg-shaped reed baskets, seven or eight inches in length with a hole in one end, greatly appreciated by this and the other Grassfinches both for sleeping and nesting in, although the nest is also often built amongst the branches in the aviary without any artificial framework; and the only two young reared this year in my aviary were hatched in a nest of this kind. Grass seems to be the material mostly used.

Mr. Phillipps has already pointed out (vol. IV., p. 187) the singular way in which the genus *Poephila* is divided up into pairs; first we have the Long-tailed (*P. acuticauda*) and Parson Finches (*P. cincta*), resembling one another in all their ways and in the markings of their plumage, the only differences apparently being in the colour of the bill and feet and the length of the two central tail-feathers. Then there are the more delicate but equally beautiful White-eared (*P. leucotis*) and Masked Grassfinches (*P. personata*) very closely resembling one another, but both differing greatly from the first couple. Lastly, there are the two forms of the Gouldian Finch (*P. gouldiae* and *P. mirabilis*), breeding freely together and identical in all but the markings on the head, but absolutely unlike the other two couples in every way. It seems to me very strange that all these should be placed in the same genus.

The Long-tailed Grassfinch inhabits the North and North-west of Australia.

The prevailing colour of the adult is pinkish-brown; upper and under tail-coverts white, with a black band across the rump; head delicate pearly-grey; a patch of deep black on the

throat; tail black, two of the side feathers being tipped with white in some specimens. Legs and feet coral red; bill yellowish orange or orange red.

The young are much greyer than their parents and have black bills and feet.

THE MASKED GRASSFINCH.

(*Poephila personata*).

By REGINALD PHILLIPPS.

Some four years ago, the Long-tailed, the White-eared, and the Masked Grassfinches were practically unknown to the majority of aviculturists in this country; but then there came a flood of them, and the three species have since been almost common.

More than once in our Magazine have I referred incidentally to the species which forms the subject of this paper. In September, 1897, at page 185 of vol. III., I gave a short account of its habits as a squatter. And in August and September of the following year, under the heading of The White-eared Grassfinch, I gave some further particulars, drawing comparisons between the two species, especially at pages 186-187. And members who are interested in these little finches, which are somewhat alike and occasionally mistaken for one another, should compare Mr. Peter Smit's beautiful illustration of the White Ear which faces page 169 of vol. IV. with that of the Masked Grassfinch, which I understand has been most kindly painted by Mr. Seth-Smith and is to appear with this article. In my opinion, not only do illustrations, especially when coloured, greatly add to the interest of a magazine, but are of immense assistance to aviculturists in helping them to identify their pets. We ought, therefore, to be particularly grateful to Mr. Seth-Smith for thus ornamenting our Magazine, and enabling us to see at a glance the difference between *Poephila leucotis* and *P. personata*.

I fear that I have not much of interest to say about the Masked Grassfinch. It has from time to time nested with me, but, from various causes, has never brought matters to a satisfactory conclusion. And it is difficult to know exactly when they are really nesting and when constructing only a squatting place. More than once have I said to myself, "Behold, they nest!" when they were building only something on which to squat. At a bird show, it is very pretty to see these birds squatting side by side on the bottoms of their cages; but, when

they have liberty in an ordinary room, this habit of squatting becomes an element of danger. In a room they will probably squat on the draughty floor, facing the room, with their raised tails against the wainscot, or, worse still, on the window itself, a most dangerous place.

In the garden aviary, until they had learned wisdom by bitter experience, my birds, when first let out, used to sit on the ground, and passed a great part of several weeks on a sunny hillock. But a hillock in London is not often a sunny one for any length of time; and when cold and wet followed the warm weather they built for themselves a squatting place (I flattered myself that they were nesting) against a post, amongst the Virginia creeper stems, and completely covered by the leaves. Probably it was because of the denseness of the foliage that they did not make a covering to this structure. It was about two feet from the ground, several inches high, rounded laterally, with a flat side against the post, nearly flat on the top, with the solid part largest above and tapering off below, like a rounded pedestal. It was made entirely of dry grasses, broad ones predominating, with the peculiarity that from top to bottom, and all round excepting against the post, the grass ends were arranged so as to hang down some 3-6 inches, not in chance confusion, but with what had the appearance of being designed symmetry and orderly arrangement, like a fashionable shower bouquet. It was a remarkable piece of architecture, and worthy of being preserved, but was so interwoven amidst the stems that I found it would be impossible to remove it without cutting the stems and destroying a large mass of Virginia creeper. During the summer it was quite hidden; and it was not until the autumn, when the creeper had shed its leaves, that I was able to see and appreciate it fully. The Masks were removed to their winter quarters; and, since, their natural instincts seem to have become blunted, or they have turned lazy, for they are usually satisfied with ordinary nesting boxes, or the deserted nests of other birds. In truth my Masks have proved themselves, with the one exception mentioned above, very inferior architects, and sadly lacking in energy and perseverance compared with the White-eared Grassfinches, whose nests and squatting places, alike in general character but varying considerably in detail to suit varying circumstances, continue to surprise and please me year by year.

In the early summer of 1899, an odd male Mask paired with an odd female White Ear, a nest being built in the heart of

some hay which had been arranged against a wall behind some lattice-work. After some time the female entirely disappeared; and when I was able to institute a search I found her dead on the nest, still sitting on her eggs. It was not a case of egg-binding. The faithful little creature had stuck to her post through cold and rain, and had perished while still "mothering" her four clear eggs. For how long she had been sitting on them I cannot form an opinion. This failure does not alter the opinion I expressed at page 170 of vol. IV., so far as it relates to the probable fertility of eggs produced by birds of these two species pairing together. The birds require warmth, and my aviary is too cold for them. But a longer acquaintance with them has taught me very plainly that, like other species, these two will not interbreed under normal conditions.

A nice open aviary, thickly planted with trees and shrubs, is a charming place in theory; but in our uncertain climate it sometimes produces disastrous results. This is the second time that I have lost a valuable mother from wet and cold. Moreover, from time to time I lose strong, healthy, young birds, not so often in as after they have left their nests. Branchers of many species keep night and day in the trees, and wet and cold are often too much for them. The opinion that one sometimes sees expressed that, if the young of delicate foreign birds could be hatched and brought up in the open air they would be as hardy as Britishers, is a delusion. As a rule, the young are less hardy than the adults—at least I think so. But there is a happy reverse side to the picture. I have never had a single case of ordinary egg-binding in my garden. On the very few occasions that I have had a case of egg-binding, it has been in the house. But I must confess to having lost not less than two females from inflammation of the ovary, caused by cold. And, again, many species will nest in a natural aviary which will not nest in an artificial one; and it is only in the former that the real natures and habits of many species can be observed.

I understand that the Masked Grassfinch has not been bred in this country. The Natural History Museum Catalogue (vol. XIII., p. 377) says of the young, "Browner than the adult, with a blackish bill; the whole plumage with less pink, and the black mask and flank-spots not so pronounced."

The sexes are practically alike; and there is something about the bird which tends to mislead one as to the sex in a very provoking manner. I think the male is a larger, more energetic bird, with a thicker and more strongly-curved bill.

It is only fair to the Masked Grassfinches to add that I have never cared so much for them, and have not, except perhaps at first, given them such fair and favoured treatment as the White Ears have received at my hands. This should be borne in mind, and also that I have far too many companions for them, for under favourable conditions they might have done much better.

The Masked Grassfinch is a quiet, amiable bird, but, in my opinion, is neither so elegant, so engaging, nor so rare as the White Ear. It is quite as delicate, some think much more so. Nevertheless it is a nice bird, which I most strongly recommend our members to add to their collections—if they cannot get the White Ear.

Feed on Indian, spray, and white millet, and canary seed.

Habitat—"North and North-west Australia."

A NATURALIST'S NOTES IN ECUADOR.

By WALTER GOODFELLOW.

(Concluded from page 228).

In the present article I am going to write of some of the birds from the lowlands or hotter parts of Ecuador, in the same way that in my last article I wrote about some of those from the higher mountain regions.

To begin with, I will take the Toucan-like Barbet (*Tetragonops rhamphastinus*) from the forests of the Pacific side, as I kept one of them for a time, at Gualéa. These handsome birds, in the texture of their feathers and arrangement of colours, much resemble the *Andigena laminirostris*, and somewhat strangely, too, they come from the same localities, between four to six thousand feet, which is their usual home; but, it is probable that, like the Toucan, they range to a still higher altitude at certain seasons of the year. While we were collecting at Gualéa, a boy brought me one of these birds, slightly injured in one wing. He had it carefully tied up in his poncho, and I naturally at once put my hand in to take it out, but I could not have withdrawn it quicker had there been a snake in it instead of a bird; for it hung on to the back of my hand, and would not let go until its beak was forced open with an awl. Its tenacity was astonishing, and I never remember having a worse bite from a bird, except from a Macaw. One has only to look at its strong corrugated bill to realize the bite it could give; beside, the extreme tip of the lower mandible forms a slightly projecting

tooth on each side, which the upper one fits into. However, when transferred to a "chángara," a kind of basket with open meshes, it quickly became resigned to captivity, and fed readily on almost anything that was offered to it. It was surprising how soon it came to know those who were in the habit of feeding it; and whenever I entered the hut, it always expected me to give it some dainty. Its staple diet was boiled potatoes, which was about all we could get there; but at times I gave it various kinds of berries; some it would eat readily, but others it rejected altogether. Insects of all kinds it devoured greedily, especially cockroaches, and it was its passion for these that caused it to become tame so quickly. It was a silent bird, and I cannot remember that I heard it utter any sort of sound while I had it; but, unfortunately, its quarters were so confined that it had no chance of showing itself off to advantage, or to exhibit any talents it might have possessed. I was obliged to leave it at Gualéa while we went further down into the forests, and on my return a few weeks later, I was told it had escaped. I had looked forward so much to getting it back to Quito, where I could have given it better accommodation, and had more opportunities of finding out its good or bad qualities. These birds are confined solely to Ecuador, and are found only on the Pacific side. They are very striking looking birds, and attract special attention even among such a varied collection of beautiful birds as we made. Its total length is eight-and-a-half inches, and in shape is rather a bulky and thick-set bird. To describe it minutely is rather difficult, but I will try to give a general impression of it. To begin with, the top of the head is glossy black, which colour narrows towards the nape, where the feathers are an inch long and lie in a point on the back. They have such a gloss on them that they quite glitter, and the black extends in a narrow shining collar half way round the neck. From just above the base of the eye is a patch of white, which reaches back to the collar. At times my bird rather spread or puffed these feathers out, but I never saw it raise the long feathers on the neck, which really look like a long crest coming from the top of the head. The sides of the head, throat, and fore part of the breast are a fine mauvish-grey, and a broad band of shining blood-red crosses the centre of the breast, and in very adult specimens continues right down the centre to the vent. The flanks and lower parts of the breast are orange mixed with green, and the vent is greenish-grey. The back is an exceedingly rich shade of golden-brown, rather greenish in some lights, and the rump is chrome-yellow. The tail is slaty-blue, and the

wings the same colour, but the flights are edged with dark greenish yellow. The bill, which is surrounded at the base with stout black bristles, is yellow with a black tip, and a patch of dull red on each side at the base. Those who are unacquainted with the bird, but can picture it in their mind from my description, will see that it is a bird of no ordinary appearance. We collected, perhaps, a dozen of them at various localities, and I have some which are blackish red on the head and collar, but not having them at hand to refer to, I cannot remember if they are labelled females or young. They were by no means easy birds to see in the forests, and we found them always singly or in pairs.

Of the true South American Barbets we obtained three kinds from the Western side at about coast level. They were the *Capito bourcierii*, *C. richardsoni*, and the rare *C. squamatus*; and from the Napo, on the Eastern side, *C. punctatus* was the only one we met with. The *bourcierii* is by far the handsomest of the lot, and is locally called the "Ruiñeñor," which is the Spanish for Nightingale. I cannot imagine why it is so called, for, as far as I could make out, it has no song whatever, neither does it in the least resemble our sombre plumaged songster, with its head and breast of intensely brilliant red, its yellow underparts, bright green back and wings, and its stout-looking bill. Its wife also is delicately and peculiarly coloured of a style all her own, and under ordinary circumstances would be considered a rather bright coloured bird even for a male. We met with them only in the forests, and did not find them at all common anywhere. The *richardsoni* is a small bird, barely five inches long, and much resembles the preceding species in its colours, but is a little more variegated. The *squamatus* is very distinct, being glossy blue-black and creamy-white, with a yellowish-red forehead. The only place where we saw these birds was at Santo Domingo in the dusk of the evening, when Mr. Hamilton saw three together on a dead tree on the edge of the forest. He killed two of them, but only recovered one, as it was impossible to find the other among the vegetation in the growing dusk. The next evening, about the same time, he chanced to be in the same spot, and again saw the third bird in the tree where he shot the others the evening before. This one he secured, and it turned out to be a male; this was the only pair we ever came across. They cling to the tree trunks, and run up them much in the same manner that a Woodpecker does. The *C. punctatus* was fairly common about the headwaters of the Napo, and I think we shot some at all the places where we stopped to collect on that river. At one of the

Záparo Indian villages somewhere in the forests, I had one given to me alive. It was so exceedingly tame that I think it must have been brought up by hand, and like most of the birds we got from these Indians, had been in the habit of living constantly on the women's shoulders. It certainly preferred to run about our clothes, or to perch on our fingers, to any other position. It seemed to hold on to one so much tighter than any other bird except a Parrot, because it has two claws in front and two behind like a Woodpecker. It was, perhaps, rather more fond of climbing than hopping from perch to perch, and it did the latter somewhat clumsily, and gave one the impression that the feet were loth to relax their grip of the perch; still it was a lively uncommon-looking bird, and had a quaint habit, when perched on my finger, of lowering its head, turning up its tail, and jerking its body quickly from side to side, accompanied by a bubbling noise in the throat. Unfortunately, it was not in my possession long, for it was eaten by the same dog which robbed me, about that time, of one of my Tovi Parrakeets. Its favourite food was the boiled fruit of the "chonta" palm—a mealy kind of carrot-coloured fruit, tasting something like boiled chestnuts. It is a food these particular Indians give to all birds and animals they keep, and Parrots, when once used to it, seemed to prefer it to all other food; but it gives the bird or person who habitually eats it a peculiar aroma which I consider anything but agreeable. My *punctatus* would also eat banana, but not with the same avidity as "chonta," and cockroaches and all insects it was mad after.

On the Western side we met with several varieties of *Dacnis*, the principal ones being the *D. egregia*, *cærebicolor*, and *pulcherrima*. We found the first the commonest, and the last the rarest. They are to be found in the clearings in the forests, among the fruit trees about the huts, searching all day long for insects; and in the way they cling to the twigs and leaves, remind one much of the Blue Tits. I have also seen them taking small spiders from the thatch under the eaves of our hut. They never seem still for an instant, but take little or no notice of the presence of human beings. I once caught a *cærebicolor* in a butterfly net at Nanegal. We also found the beautiful *Chlorophanes atricapilla* to be common in the same localities, especially among banana plantations, and most of those we collected were shot in the ripe bunches, in the company sometimes of large birds.

One of the birds which took my fancy immensely was the Black-faced Blue Chatterer (*Procnias tersa*). In certain localities

we found it to be quite common on both sides of the Andes, chiefly at the foot of the mountains in the forest clearings, but never in the forests themselves. The males looked remarkably brilliant as they flashed past the hut in the sunlight. On the Western side we often shot them on the bananas, and I also saw them eating the young and tender shoots of bushes; but on the Napo side, several that we shot had been feeding on a hard green fruit like a sloe. Although they have a very wide gape, it seemed a large fruit for a bird of that size to swallow. The male is about five inches long, and, if held facing the light, is a curious shade of bright shining green; but, if turned back to the light, the whole plumage at once looks a lovely cœrulean blue. The face is black, and so are the flight feathers, but edged with blue. The vent and centre of the breast are pure white, and the flanks are very finely barred with black. The bill, which is very short, flat, and wide, is also black. The female is entirely of a rich green, and yellow where the male is white on the under parts. As may be imagined, the female is much more seldom seen than the male, as her plumage, assimilating with the foliage, affords her more protection. The young take after the female; and some we procured, which have partially changed their plumage, look very curious, mottled with the combination of male and female colours. I should somehow imagine these birds would not be at all difficult to keep in captivity; neither should the glorious *Cotingas* be, of which we also obtained specimens on the Napo. The *Cotinga maynana* is really about the same colour as the *Procnias tersa*, but somehow looks still richer and more beautiful, which is partially due to the scale-like plumage, and also to the curious purple and white base all the feathers have.

No one who has heard the song of *Turdus ignobilis* would again think that tropical birds lacked the sweet voices of some of our Northern ones. Even making allowance for the fact that the majority of the birds from the lowlands of Ecuador have no song worth mentioning, and therefore when we came across a bird which did sing it was doubly appreciated, still I have seldom heard anywhere a bird with richer or more ringing notes than the *Turdus ignobilis*. We first met with them around Popayán, in Colombia, but I never remember hearing them sing there: probably it was not the time of the year for them to do so. We did not see them again until we got down to the Napo, where we found them very common at the Coca, in May and June of last year. I have two skins before me now, both males, one from Popayán, and the other from the Coca: and I find there is

quite a local difference between them. The Colombian bird is larger and has more of an olive-brown shade over all the plumage; the throat is less white than the Coca bird's, but it has the lower part of the abdomen and under tail coverts of a much purer white; the bill is also a little darker. I am sorry I have not more of their skins with me at the moment, to see if these differences are constant or not. I often noticed them feeding on the same bushes with the Magpie Tanagers, and they usually frequented the bushes and low trees in the most open parts of the clearings. One of the first of the many sounds to wake us in the early mornings at the Coca, and often before the weird cries of the night-birds had ceased at the approach of dawn, was the beautiful song of the *ignobilis*, which came from the tops of many bushes about the small clearing, and continued until the day grew hot.

I had some four or five of the young ones brought to me at different times, but I never could manage to rear one of them, although some I fed on an exclusively insect diet (chiefly spiders and small cockroaches); perhaps some of the insects did not suit them, for they all seemed to get a distaste for their food, and died. In such a country as we were then in, where nothing was to be had, it was always difficult to rear young birds unless they were exclusively fruit-eaters; and I cannot congratulate myself on my success with the many young birds of various kinds I tried to bring up. I cannot be certain that I came across any of the nests of the *T. ignobilis* myself, although I believe that some of the old and new nests I found in the orange trees near the hut must have belonged to them.

In my last article I mentioned the *Xanthura turcosa*, which we found in the cold mountain regions. We also met with another of the species, *X. incas*, in the warm valleys between the mountains on the Eastern side. It is still more beautiful than the *turcosa*, because its colours are more varied and assimilate so well together, a peculiar softness blending them all. Its total length is twelve inches, and the top of the head and neck are creamy-white in one light and the palest of mauves in another, which is shaded into pale blue on the back. The sides of the head and throat are black, but there is a broad triangular patch of Oxford blue on each side at the gape, and a small touch of the same colour over the eyes. The feathers on the forehead, which grow out in a forward direction, are of a slightly more violet-blue shade, and cover half the length of the bill. The wings are a soft green on the upper side and yellow underneath, and

the whole of the breast, underparts, and tail, are clear Canary-yellow, except the two central tail feathers which are bluish-green and longer than the rest. We saw these birds in flocks below Baeza, and always in high trees, making such a loud chattering noise that we heard them long before we came near them, in fact it was the noise they made which always drew our attention to them. I believe the Colombian bird does not vary from the Ecuadorian one, and we often saw them in the Cauca valley.

An Englishman who had a mine there kept several of them alive, which he had brought up by hand. They were exceedingly tame, and had their liberty about the verandah and garden. They were very amusing in their ways, and I often watched them pick up small pebbles, scraps of paper, etc., and hide them in holes in the walls, and behind the shutters. They were not at all particular as to what they ate, and lived on scraps from the table and what they found in the garden.

On the Napo we also shot some of the Violet-blue Jays (*Cyanocorax violaceus*). These large birds are a beautiful violet-blue all over, except the head and throat which are black, and the nape which is so light as to be almost white. As you turn the bird about in the light, the colours change to every degree of richness. We saw them always in pairs. I include them in this article because when we reached Iquitos, on the Upper Amazon, I saw a very fine specimen which had its liberty about a house close to where we were living, and it often paid us visits. Although its wing was not cut, it never flew away from the place, and was always about the small garden or on the roof of the house. It was very friendly and inquisitive, and I hoped I should be able to persuade its owner to let me have it before we left, but I never succeeded in doing so, although the disagreeable old woman who owned it did not seem to have any affection for it. The female bird is not quite so bright in colour as the male, especially on the breast, which looks greyer.

We found three varieties of Motmots common at the Coca—the Broad-billed, the Red-headed, and the Blue-headed. The last were perhaps the most numerous. I believe Motmots have been kept alive in England, but, judging from their habits in a wild state, I should think they have little beyond their beauty to recommend them. They seem silent uninteresting birds, and sit for hours on the same branch, only leaving it to seize a passing beetle or other insect, returning again to the same place. On the edge of the forest, I have seen them fly

down to the ground and catch a grasshopper without settling, and fly back to the tree to eat it. We found the Broad-billed variety on both sides of Ecuador, and, although personally we only met with the Red-headed ones on the Eastern side, they come also from the Pacific side.

Doves and Pigeons are not at all abundant in either species or numbers in the hot parts of Ecuador, and are among the birds least met with ; still at Santo Domingo we obtained some of the exceedingly pretty little pale grey *Peristera cinerea*. They were always in pairs, running about the paths near the huts, and they had a slight peculiarity in their habits which I have not noticed in other Doves. When alarmed, instead of taking flight as most Doves do, they remained immovable, skulking as near to the ground as possible. At times, when they *must* have seen my approach long before I got to them, and had plenty of time to clear off, although I had not noticed them, they startled me by dashing up almost from under my feet.

This was the only species of Dove we met with in the forest regions, but about the same districts we found the remarkably handsome Pigeon, (*a*) *Geotrygon purpurata*, which was confined to the tops of the high trees in the thickest part of the forests. We only shot one male ourselves, but often heard their rather curious note, resembling a loud hoot, but seldom could catch a glimpse of them. A rubber hunter brought me a female in the month of July, which had an egg inside ready to be laid, but broken, so they must have been nesting then. They seemed to be solitary in their habits, and were certainly not common in any neighbourhood we were in. It is a small Pigeon, barely nine inches in length, and has its colours of snowy white, richest purple, mulberry, green and bronze, wonderfully arranged. The long, loose, delicately-coloured fawn feathers on the thighs also add to its appearance. It is one of the most difficult birds to skin that I have met with : its skin having very little more substance in it than wet tissue paper, and the feathers fall out copiously even with the most delicate handling. It is quite as bad in this respect as some of the Trogons, which are usually considered *the* most difficult birds to skin. The flesh of this Pigeon is white to a remarkable degree, and resembles alabaster in appearance. On the Napo side we found a still smaller Pigeon, the (*a*) *G. sapphirina*, which exactly resembles the *purpurata* in all respects, except the back of the head and neck which are

(*a.*) *Osculatia purpurea* and *O. sapphirina*, according to the Nat. Hist. Museum Catalogue.

grey and green, instead of rich purple, and the purple line from the gape is also paler. In July we shot a very young one of these Pigeons on the Suno, which has the head, back and wings, dark reddish-brown, barred with black, and across the upper part of the breast is a broad band of dark dull grey, barred with brown and fawn, which band on the adult bird is of the palest grey. A few feathers on the head and back are just moulting to the adult plumage. These were the only two species of Pigeons we met with in the forests of Ecuador.

And with this I must bring these notes to an end. I had intended, if time permitted, to have extended them to two more articles, but I expect, by the time this appears in print, to be about ready to leave England once more for a sojourn in far off lands, in quest of more birds; and if I am spared to return in safety, it will give me great pleasure, at some future date, to write again of my success and experiences, in the pages of this Magazine.

NOTE.

I am sure that I am expressing the feelings of the whole of the Avicultural Society, when I tender on its behalf very hearty thanks to Mr. Walter Goodfellow for the series of charming and instructive articles which, through the past year, have been such a great gain to our Magazine. We hope that his next wanderings may be as successful and as fruitful as those in Ecuador, and that on his safe return he may not forget the pages of the *Avicultural Magazine*.

EDITOR.

THE BREEDING OF THE INDIGO BIRD.

Fringilla cyanea.*

By the Rev. C. D. FARRAR.

By the Creoles of Louisiana this pretty little bird is known as the *Petit Pape-bleu*. It is a migratory bird, and arrives in the Southern States from the direction of Mexico, with the Painted Finch or Nonpareil. They are taken in great numbers by means of traps. It is not a forest bird; but prefers the outskirts of woods, the little detached thickets, along the fields, and is seen frequently perched on a fence or on some conspicuous bough, whence it utters its really pretty song. The female skulks in the thick brushwood, where her sober coat renders her still more inconspicuous.

The Indigo Finch is rather a short stumpy little figure of a bird, and, though not as gorgeous as the Nonpareil, he has not

* *Cyanospiza cyanea*.—Cat. Birds Brit. Museum.

the latter's vile temper. Indeed, he will agree well with his kind: a thing which the Nonpareil utterly refuses to do—his motto seems to be, "One world for one Nonpareil," and he certainly acts up to it.

I never could understand where the Indigo Finch got his name, as it is quite a misnomer. This cock is not indigo but azure. The cock Indigo only assumes his gorgeous livery as spring advances. During the autumn and winter months he is a sober little gentleman in a drab suit with just a mere suspicion of blue facings. The hen remains the same dowdy little thing all the year round.

I have at present two adult pairs of Indigos in a large aviary, which I call "The Wilderness." It is full of shrubs and bushes, and long rank grass knee deep, interspersed with thorns and nettles of gigantic proportions; an ideal place from an Indigo Finch's point of view.

In this aviary they have been now two years, but till the present season they never made any attempt at nesting; although the Nonpareils gave them a lead last year.

One day in the late spring of this year, I saw Mrs. Indigo carrying about some bents in her beak: a sure sign of nesting operations about to begin. She was very 'tickle' about a site, as we say up here; and began on several, but finally abandoned them for reasons best known to herself. At last, however, she found a site to her liking at the very top of a tall shrub. The nest was composed of the very slenderest materials, and was no stronger than a White-throat's. It was not built on a solid foundation, or some convenient fork; but *suspended* by the strands from the branches, like a small Oriole's nest. So light and utterly flimsy was the whole affair that I was in despair. I felt certain it could never stand any real work. Just as it was finished and ready as I thought, I went to London for the inside of a week, and on my return I found that an egg had been laid, presumably that day. I looked the next morning for No. 2, but it was not there, and I feared she would lay no more. However, I waited in patience, and the next day there was a second egg, and a third followed; and then Mrs. Indigo settled down to her duties.

Here let me make a strange note—the eggs were all without any markings whatever, and a dirty whitish blue in colour. Now, in all books I have read, it is said that the eggs of the Indigo

Finch are blue with a spot or two of purple at the larger end. Did my hen lay abnormal eggs? (*b*)

Mr. Oates, one of our members, has seen the eggs, and if the one clear egg survives, (*c*) I hope to send it to Dr. Butler to look at.

I soon saw, when the hen began to sit, that like Humpty Dumpty who sat on the wall, my poor little friend would, unless I did something to avert the catastrophe, "have a great fall." The mere weight of her body made the nest lean over in the most ominous manner; and I saw that if it were to survive, artificial strengthening would have to be resorted to. Now there may be readers who, when they read what follows, will cry in derision, *Credat Judæus!* but as Bret Harte makes one of his characters say somewhere, "My name is truthful James," at any rate for this occasion. Seeing that the nest was giving way in its supports—remember it was only *suspended* by thin strands of grass from the branches—I determined that I would try a Cæsarian operation. Probably in America the Indigo Finch can find tougher material for "suspensors" than I can find in Yorkshire. I went indoors and found my wife's workbox. I selected a needle of 'fair proportions' and with an eye that 'a camel might go through'; some stout black thread that would hold a healthy Zebra; and after spending some hours of patient effort, I succeeded in threading it. Then I hurried off to the aviary and to the aid of poor Mrs. Indigo. I found her bravely sitting but in what I cannot but think must have been a painful position, as her head was down and her tail was up, and I saw that if things went on as they were doing, the precious eggs must fall to the ground by the attraction of gravity. I looked at the little hen and I said to myself, "I wonder if you will stand what I am going to do. It is for your good and the welfare of your coming family, therefore pardon me." I put out my finger and she skipped off with her little crest erect and hopping on to a neighbouring branch, anxiously awaited developments. I was as quick and handy as a *man* could be with such a clumsy weapon as a needle to handle and a long bit of thread.

I passed the threads through the nest to act as 'suspensors' until like Johnny Gilpin, 'I made the balance true.' It took a bit of time, but then I am not a good hand with needle and

(*b*.) Mr. Farrar does not appear to possess my "Foreign Finches in Captivity," or he would see that on p. 58 I say of the eggs: "they are mostly bluish-white, though sometimes they are sparingly spotted and blotched with rusty brown."—A. G. B.

(*c*.) It got broken by the youngsters.—C. D. F.

thread. I had grave doubts as to whether my well-intentioned efforts would succeed, but it was kill or cure. I felt like Baden Powell, it was a question :

If we go forward, we die.
If we go backward we die.
Better go forward and die.

My readers can supply the parallel.

To my surprise my little friend seemed to understand that I was only lending a helping hand ; and when I came back a quarter of an hour later, she was sitting on the eggs as if naught had happened. To show my perfect veracity I will send the nest and suspenders of thread to some member of our Society to see (*d*).

At the end of twelve days I found two of the eggs hatched and one clear egg. I was pleased over my luck, as I felt sure from past experience that I could rear them.

Everything went happy as a marriage bell, for a week, and the youngsters grew as one could wish. The next day was Sunday, a day of peace and goodwill. In the country Sunday is a day of terrors to people who have aviaries ; for the common necessary boy is on the prowl. I went to Evensong at 6 o'clock, and I forgot to lock the padlock on the Wilderness. When we came out of Church I went across to the aviaries to feed up for the last time. As I crossed the field I saw three boys up a tree after a nest. I shouted to them fiercely and they fled incontinently, but not before I had recognized them. It was a rare thing I did look, as the sequel will shew. On reaching the aviaries I found to my horror that the padlocks had been stolen, and on looking inside I could see that someone had been inside. I said to my wife, "It is those boys and I will be bound those young Indigos are gone." I entered with a dreadful feeling of sickness and crept miserably towards the Indigo's nest. To my joy it was there all right and the youngsters in it. How that nest escaped will always be to me a miracle. I could have screamed for joy. Then my thoughts turned to sweet revenge. I went to one of the boys and I said : "If you do not give me the padlocks you have stolen you will accompany me to the policeman." He protested with ashy face that he had never been near my garden and had never seen my padlocks. Unfortunately for himself, he had a few moments before offered to exchange them with another boy for value received. I taxed him boldly with

(*d*). They were seen and handled by Messrs. Creighton and Watson.—C. D. F.

deflection from the path of Truth. He vowed he only had one padlock (a red one, of all colours) which his father had given him. I again hinted at the man in blue. He reconsidered the matter; he knew who had got the padlocks. Would I let him go and fetch them. He even named the boy. I consented. In about a quarter of an hour he returned with my padlocks. The next morning, it being Sunday, I went to see Papa No. 1. I told him the story and gave him the alternative of (1) giving the boys a sound thrashing or (2) going to the neighbouring Police Court. He elected the former, and opined in a tragic voice that his lads would not come into my garden again. The tone was horribly suggestive and I felt for those boys, but then I thought also of poor Mrs. Indigo and her family, and the cheek of the whole thing. That same evening a knock came at the door, and when I went out to see, there stood paterfamilias and the two culprits, greeting right sore, and as I opined also right sore (forgive the pun) as to their lumber region. Papa had a good ash plant in his hand, as though to give me ocular proof that justice had been done. "There," he said, "Sir, I hav gien them a reet good thrashing, and they won't trouble you no more. Now, then," to the culprits, "beg Mr. Farrar's pardon." I really felt a little sorry for the poor lads, and I freely forgave them; I should have liked to have given them sixpence, but then that would have been to encourage vice.

These Indigo birds are now locked up throughout the day and woe betide anyone who comes to molest them. I *never* so nearly lost a medal as I did that Sunday evening. The other and worst culprit, I have reason to believe, was executed on the same evening, but at a later hour, when his sire returned from hay-making, and I believe the weapon of execution was identical. Let this plain unvarnished tale in which I have nought extenuated, nought set down to malice, warn all my fellow aviculturists to lock up their aviaries, even on Sundays—

When wicked little boys delight
To pull poor birds' nests out.

I say it with no egotistical spirit, that I consider these birds that rear their young exclusively on animal food far the most difficult to breed. Indigos are no exception. They absolutely refuse to feed on anything but "live bait." Hence I think a *gold* medal should be given for rearing them; or better still "unlimited mealworms" (e).

(e). I am not at all sure that this species has not been bred previously in England: it has been repeatedly in Germany.—A. G. B.

The hen, as in many savage races, has nearly all the work to do ; she labours early and late. The cock sits perched on some lofty twig and warbles approval, or finds fault like so many human fathers do when things go wrong. When the young are getting to an interesting stage, he takes a little more notice of them, and goes so far as to give them an occasional meal. Some human fathers are like that. They can't stand a flabby baby ; but they like the chicks when they begin to take a bit of notice ! Papa Indigo is the same. He first becomes fully conscious of his duties when his youngsters are beginning to cover their nakedness and to look a bit decent.

At first the young are very dark in colour, like young Bullfinches, but naked as Robins, as we say up here ; but why is a Robin naked ? When the quills begin to show, they look very much like a man that wants shaving badly. My children sometimes say to me : " Father, you are *blue* to-night ! " The coat of the young Indigos is a sober brown and the old birds feed them for a long time after they leave the nest. In the same aviary was a pair of Nonpareils, and they, too, reared a nest at the same time as the Indigos. Mrs. Nonpareil was always master of the situation and always had first go at the food. If Mrs. Indigo ventured to try to get first served, she was soon sent off with a flea in her ear. It was amusing to see Mrs. Nonpareil helping herself, and when her beak was full, off she would fly and then poor little Mrs. Indigo made the best use of her time, and off she would pop to her nest, and so the work went on early and late. I must say that I have never had a more interesting and yet more anxious experience than I have had in breeding the Indigo finch, and I am thankful to be able to say, with Shakspeare, " All's well that ends well."

The young are little brown birds.

MY FIRST VISIT TO A LONDON BIRD SHOP.

By The Rev. C. D. FARRAR.

I know of few more trying ordeals than a first visit to a London Bird Shop, there to confront the more or less self-assertive and cultured person who presides over that establishment, and whose knowledge of all bird matters will probably far exceed your own ; at any rate in his own estimation. In this interview I determined on a golden mean of conduct, lying between undue assertiveness on the one hand, and unmanly

abasement on the other. I would enter the shop quietly and naturally, and not allow myself to be astounded by anything I saw or heard. I would show familiarity with all the different birds, and would boldly select what I had come for. This seemed, the night before, easy and plain enough. After a long and tiring walk through burning streets I at last got down East, and after a deal of asking found the street I was in quest of.

Entering the establishment I had been in search of, I was effusively greeted by the owner with a "Well, Sir, what can I do for you?" The night before I had felt bold enough for anything; now I felt all my courage oozing out of the soles of my shoes, and old half-forgotten memories of the spider and the fly come rushing to my mind. I managed to stammer lamely, "I want a bird." This seemed to the owner such an obvious truism in a bird shop that he vouchsafed no answer.

"I want a *good* bird," I tried this time. Mark the word "good." Properly understood, it ought to have suggested to the man that I was a knowing old hand, and knew all about birds, and owned probably thousands, and just out of pure cussedness wanted to add another to my collection. But it was not so understood. The man of the shop seemed occupied in some abstract calculations, and answered quite shortly: "We never keep *bad* birds in this place."

"Well," I said, "will you show me some Firefinches." He went to a distant part of the shop, dashed into a long, dark-looking cage, crowded with terrified little captives which he denominated "Senegals," and after a good bit of scrambling produced three or four of the desired species. "There yer are," he said, "'ow many." He said, "'ow many" in such a tone as to suppose that he would be mentally offended if I said less than fifty. I said rather tamely: "Well, I only wanted about one or two." "All right," said he, "take 'em or leave 'em." I took the cage in my hand, held it up to the light, and opened one eye and shut the other, as though I proposed to go shooting. Meanwhile the man maintained a stony silence. Indeed, he appeared not to take the slightest interest in me or my purchases. Even curses would have been welcome. I grew frightened and flustered; I opened the cage to get a nearer peep, and lo! "peep," away shot a Firefinch up to the ceiling. Still that man said nothing; at least nothing *audible*. He just got a net, and after about half-an-hour's chasing, managed to get that Firefinch; more dead than alive. "Don't you think it would be

well," I said, "to have your cage made more secure." He said something under his breath about "silly idiots" coming in taking up people's time; and audibly, that if I would let him know when next I proposed to honour his shop with a visit, he would try to devote a whole day to me.

"I will take these two," I said, rather haughtily, as if I was conferring a high favour. He seemed to take it quite as a matter of course. "All right," he said, "what next." "Any Troupials, Sugar birds?" "Now, I can do you fifty Sugar birds reasonable; £3 each, taking the lot. I bought all that came." I said: "Oh! indeed!" as if fifty Sugar birds, more or less, was nothing to me. "Would you halve them?" The man lightened considerably. Yes; he would to oblige me. I said I would sleep on it.

Then I decided to be open with him. I told him how I knew literally nothing about birds. He positively beamed on me. We went into all sorts of abstruse subjects, foods, mealworms, cages, sex of Parrots, till my head fairly reeled. I came in to buy a humble Firefinch. Now I was in, it was quite wonderful how many things I wanted. "Do you know what this is?" he said, taking me by the lappet of my coat. I confessed my crass ignorance. "That is a Poë bird from New Zealand." "Is it very expensive?" I faltered. "Oh, not very; you shall have it for £4 10s., though it is worth more." I thanked him with tears, but said my purse would not run to it.

We parted excellent friends; before I left the shop he was almost affectionate. For my part I paid a few judicious compliments about the immensity of his knowledge and the ignorance of all other dealers. This seemed to please him mightily; and when I last saw him, he was still beaming upon me.

When I got home I opened the cage and showed my purchases. Somehow they did not look quite so fresh and gay as in the shop. My family were not encouraging. They said they never knew anyone so easily taken in. "What did I want more birds for?" What could I say? I went out and slammed the door.

ZOO NOTES.

By J. LEWIS BONHOTE.

XII.—AUGUST.

Aug.	3	1 Pheasant— <i>Phasianus colchicus</i>	British Isles.	Pheasantries.
		3 Ring-necked Pheasants— <i>Phasianus torquatus</i>	China.	"
		2 Gold Pheasants— <i>Thaumalea picta</i>	China.	"
"	6	1 Chinese Quail— <i>Coturnix chinensis</i>	China.	Western Aviary.
		2 Asiatic Quails— <i>Ferdicula asiatica</i>	India.	"
		2 Sparrow Hawks— <i>Accipiter nisus</i>	Europe.	North. Aviary.
"	8	2 Black-headed Caiques— <i>Cuica melanocephala</i>	Demerara.	Parrot House.
		1 Quail— <i>Coturnix communis</i>	Europe.	Western Aviary.
"	9	1 Red and Yellow Macaw— <i>Ara chloroptera</i>	S. America.	Parrot House.
		1 Blue and Yellow Macaw— <i>Ara ararauna</i>	S. America.	"
		1 Gold Pheasant— <i>Thaumalea picta</i>	China.	Pheasantries.
"	11	2 Little Bitterns— <i>Ardetta minuta</i>	Europe.	Fish House.
"	13	5 Rosy-billed Ducks— <i>Metopiana peposaca</i>	Bred in Menagerie.	Duck Ponds.
"	14	4 Indian Crows— <i>Corvus splendens</i>	India.	Crows' Cages.
		1 Little Cormorant— <i>Phalacrocorax javanicus</i>	India.	Fish House.
		3 Dwarf Turtle Doves— <i>Turtur humilis</i>	India.	Western Aviary.
		1 Green-winged Dove— <i>Chalcophaps indica</i>	India.	"
		1 Indian Roller— <i>Coracias indica</i>	India.	"
		1 Bengal Weaver Bird— <i>Ploceus bengalensis</i>	India.	"
		1 Manyar Weaver Bird— <i>Ploceus manyar</i>	India.	"
		4 Black-coated Weaver Birds— <i>Ploceus atrigula</i>	India.	"
"	15	2 Black Storks— <i>Ciconia nigra</i>	Europe.	Storks' Paddock.

Aug. 15	1	White-collared Kingfisher— <i>Halcyon chloris</i>	India.	Western Aviary.
	1	Ring-necked Pheasant— <i>Phasianus torquatus</i>	China.	Pheasantries.
„ 16	1	Roseate Cockatoo— <i>Cacatua roseicapilla</i>	Australia.	Parrot House.
	3	Pheasants— <i>Phasianus colchicus</i>	British Isles.	Pheasantries.
„ 17	1	Common Peafowl— <i>Pavo cristatus</i>	India.	„
	1	Military Macaw— <i>Ara militaris</i>	South America.	Parrot House.
„ 18	1	Long-legged Buzzard— <i>Buteo ferox</i>	Africa.	Kites' Aviary.
	2	American Kestrels— <i>Tinnunculus sparverius</i>	America.	North. Aviary.
	2	Lesser Kestrels— <i>Tinnunculus cenchris</i>	South Europe.	„
	1	Black Kite— <i>Milvus migrans</i>	Africa.	Kites' Aviary.
„ 20	1	Javan Mynah— <i>Gracula javanensis</i>	Malacca.	Western Aviary.
	1	Indian Crow— <i>Corvus splendens</i>	India.	Crows' Cages.
	1	Rose-coloured Pastor.— <i>Pastor roseus</i>	British Isles.	Western Aviary.
	1	Nonpareil Finch— <i>Cyanospiza ciris</i>	North America.	„
	1	Indigo Bird— <i>Cyanospiza cyanea</i>	„	„
„ 23	1	Occipital Blue Pie— <i>Urocissa occipitalis</i>	Western Himalayas.	„
	1	Raven— <i>Corvus corax</i>	British Isles.	Crows' Cages.
„ 27	1	Yellow-fronted Amazon— <i>Chrysotis ochrocephala</i>	Guiana.	Parrot House.
	1	Germain's Peacock Pheasant— <i>Polyplectron germaini</i>	Cochin China.	Pheasantries.
	1	Rook— <i>Corvus frugilegus</i>	British Isles.	Crows' Cages.
	2	White Ibises— <i>Eudocimus albus</i>	Born in Menagerie.	Great Aviary.

This time of year is about the worst in which to see birds in anything approaching good trim : they are for the most part in moult, and those that have not moulted are in very worn and dirty looking plumage, while even those for whom the annual event is now past lack the characteristic brilliancy and 'go' which was everywhere visible a few months back. I was,

therefore, agreeably surprised on my visit this month to find that the birds as a whole were looking remarkably well, the summer heat having evidently restored to health and spirits the brightly coloured inhabitants of sunny climes.

The arrivals in the Western Aviary this month are comparatively few, consisting chiefly of Doves, about which, I regret to say, I am very ignorant, and several Weaver Birds; these last are well worth seeing at the present time, many of them being clothed in the most gorgeous tints.

The Crows seem to hang in the moult more than most birds, and the attractions in their cages at the present time are not great, if we except a beautiful Piping Crow, who was piping away for all he was worth. The Gulls' Pond is also not very attractive just now, most of the birds looking very sulky and mopish.

Wandering by the Goose Paddocks, I noticed two specimens of the Black and White Goose (*Anseranas semipalmata*) to which I think I drew attention some months back. They are very queer looking birds, more resembling an Oyster Catcher than a Goose, being very long in the leg, which is only partially webbed, and having a curiously shaped head which slants upwards and backwards, almost following the slope of the bill.

The Pheasants, of which the Gardens have acquired several this month, were not visible, nor was it much loss as apart from their beauty they are about the most uninteresting birds it is possible to confine, and are practically untameable (g).

The Little Bittern and another small heron, not yet recorded, looked rather miserable in the Fish House in a cage full of Waders, a Puffin, Terns, etc. The Waders looked very well, and seemed to thrive in spite of their foreign companions.

I visited the Northern Aviary where Owls and Hawks exist; there are some nice birds there but in such bad trim as not to be worth a visit.

The only remaining house is the Parrot House, where the moult was greatly to the fore; the Westerman's Eclecti which arrived last winter seem to have gone among several others, and nothing of great rarity has arrived. The Grassfinches, Toucans, Touracous, etc. which inhabit that house were looking well, and seem to thrive where the rightful inmates perish.

(g) I regret to differ from my good colleague; but lest any one should be prejudiced against Pheasants by his opinion, I cannot help recording the fact that almost all my home-bred foreign Pheasants eat from my hand.—O. E. C.

REPORT OF THE COUNCIL FOR THE YEAR

1899-1900.

The membership during the past year has remained practically stable, although there is a slight increase—thirty-five new members have been elected, and the number now on the roll is 270.

The year was started with a deficit of £12, which, it was hoped, might have been wiped off by voluntary subscription; this, however, has not been quite possible, and there still remains a deficit from last year of £4. The Council desire to tender their best thanks to those who have so kindly helped to wipe off this debt, and if there are any more who would like to help, they are reminded that it is not too late to do so.

During the present year the Magazine has been somewhat enlarged, with the result that we have, unfortunately, again exceeded our income. After most careful consideration, we have decided that, in order to prevent a further recurrence of deficit, the annual subscription must be raised to 10/- This we have been compelled to do, as even were the size of the Magazine diminished, there would still be a deficit on the coloured plates, the originals of which were this year kindly presented to the Society. We might point out to members that when the subscription was raised before, in order that coloured plates might be supplied to *all* members, it was shewn (*Avicultural Magazine*, vol. IV., p. 201) that the extra 2/6 would not fully cover expenses, and that a large increase in membership was expected, which expectation has not been realized.

Two medals have been issued during the year: to Mr. R. PHILLIPPS, for breeding the Black Lark; and to the Rev. C. D. FARRAR, for breeding the Nonpareil. Mr. FILLMER has been strongly advocating the inclusion of Quadrupeds, Canaries, etc., in the scope of the Magazine; but, as we believe this to be greatly against the general wish of the members, his suggestion has not been followed. Miss HADOW kindly presented to the Society the first three volumes of the Magazine, which have been sold.

Many thanks are due to all those members who have kindly contributed articles or letters to the Magazine, and we hope that during the ensuing year many others may be stimulated by their good example and strive to emulate them.

Our thanks are also due to all those who have so kindly presented original coloured plates for publication, without which we should not have been able to issue any plates at all.

Finally, we would tender our best thanks to all the officers of the Society and Executive Committee, who have devoted so much time and attention to conducting the affairs of the Society, in a way which has, we trust, been satisfactory to the members.

(Signed)

HUBERT D. ASTLEY.	R. PHILLIPPS.
J. LEWIS BONHOTE.	JOHN SARGEANT.
A. G. BUTLER.	D. SETH-SMITH.
O. E. CRESSWELL.	GEORGE C. SWAILES.
RUSSELL HUMPHRYS.	R. A. TODD.
E. G. B. MEADE-WALDO.	

CORRESPONDENCE.

AVICULTURE AND "THE FANCY."

SIR,—My friend Mr. Fillmer calls upon me to prove my words, in that I say:—"Now he would persuade us that aviculture and 'the fancy' are one and the same thing," and he hints that in making such a statement I am misrepresenting facts.

If I had been able to discover any other explanation of Mr. Fillmer's observations, I should have refrained from making the above statement; but I always imagined that Mr. Fillmer understood the meaning of the term 'fancy'; therefore I could discover no side path by which he might escape from the interpretation which must be given to his remarks on p. 234 of the Magazine. He says:—

"Mr. Seth-Smith ignores the existence of a powerful 'fancy' element in connection with foreign and British birds, especially the latter. This element has never been any trouble to the Society, and there is no reason why the Canary 'fancy' should be more difficult to deal with. My personal experience is that Canary 'fanciers' are neither better nor worse than 'fanciers' of British and foreign birds."

Furthermore, Mr. Fillmer hints that to ignore fancy breeds of the Canary is unscientific, implying that by so doing we are ignoring a species: he might as well tell a dressmaker that she showed ignorance because she did not waste her time over fancy work.

The study of living species of birds is a well-defined branch of Ornithology, and is necessary to a thorough knowledge of birds: if carried out with a view to the acquisition of knowledge, it is as much (perhaps more so) a branch of Natural Science, as the study of cabinet birdskins: it certainly teaches more facts about the birds themselves: this study has been called 'Aviculture' and should in no wise be confounded with what is known as 'the fancy.'

'The fancy' is not bird culture, but the culture of bird-abortions: it does not deal with species at all, but only with the variations from species, which man's fancy has selected. The fancier is no more an aviculturist than the florist is a *practical* botanist: he deals not with *birds*, but teratological *sports*.

There is no fancy about foreign and British birds; it is all hard fact. If you put up a pair of birds for breeding, you don't worry about whether one is sib-bred and another crest-bred; you know without telling what you are likely to breed, because you are dealing with *birds*, not *fancies*: therefore to talk about the foreign 'fancy' is to talk of what does not exist.

A. G. BUTLER.

[This controversy is now closed. I have been glad to be able to insert every letter forwarded for publication on Mr. Fillmer's proposed extension of the scope of the Society. The course which the Council have thought well to take is announced in the "Report."—EDITOR].

PARROT PICKING ITSELF.

SIR,—A lady living in this neighbourhood called recently and asked me to see a Double-Fronted Amazon Parrot that she has had three months. When first sent to her she thought it might be infested with insects, as it kept pecking its body. Keating's Powder was rubbed in but did not seem to do any good. She then put the bird in a warm bath, and well washed it with Sunlight Soap. The bird is immersed while the washing takes place, and only the head appears above water. The bird likes being bathed in this manner, and is in Show condition. As I have never heard of a Parrot being so tubbed, if you know it is something out of the common, would it be worth chronicling?

W. T. CATLEUGH.

P.S.—Since the bird has been washed in the above manner it has ceased to peck itself.

"REARING YOUNG BULLFINCHES."

SIR,—Some weeks ago, in reply to a letter from Mr. Hett asking for information as to the rearing of some young Bullfinches which were just due to hatch in his aviary, I suggested eggs, ant's eggs, live ants, green food and berries, especially privet if practicable. I herewith enclose Mr. Hett's answer relating his success, as you may consider it of sufficient import to publish.

J. L. BONHOTE.

SIR,—I have delayed thanking you for your letter of the 8th instant, until I should have something to report.

On Friday the 10th inst. two young Bullfinches were hatched. I was not at all prepared for them, but followed your directions as far as practicable. I tried ant's eggs from an ant hill, but the other birds paid much more attention to them than did the Bullfinches. Egg they did not seem to touch. An abundance of groundsell and sow-thistle tops were the luxury of which they showed the greatest appreciation. Raspberries and currants (particularly the former) were also eaten. On the ninth morning one of the birds left the nest. The other which had always been the weaker was dead. The brancher is now, on its twentieth day, nearly as large as the parent birds although it is still fed by them. Had I been able to clear

the aviary and leave the Bullfinches in sole possession, I might have had still greater success. The active hen Chaffinches were generally to the fore when any misguided insects wandered into the aviary.

Thanking you for your letter and the information contained therein.

CHAS. LOUIS HETT.

TASMANIAN AND SOUTH AUSTRALIAN PARRAKEETS FOR IMPORTATION.

SIR,—Could you tell me where I could obtain information as to the Tasmanian and S. Australian Parrots, Parrakeets and small birds. I have been able to import some privately, but am rather at a loss to know *what* would be most suitable and best worth sending over. I should be much obliged if you could give me some information on the subject.

M. A. JOHNSTONE.

The following answer has been sent to Mrs. Johnstone.

There is no book limited to the aviculture of Australian and Tasmanian birds.

If you can read German you will find Dr. Carl Russ' "Handbuck für Vogelliebhaber," the most useful for your purpose: if not, I am afraid you will have to fall back upon my "Foreign Bird-Keeping," in two parts (part II. not yet completed) published by the *Feathered World*: these are the only two up-to-date works I know of which deal with general aviculture.

If you could import the Painted Finch (*Emblema picta*), the Australian Fire-tailed Finch (*Zonæginthus bellus*), and two or three of the common species of Pardalotes, these would be prized as much as any of the small birds of Australia.

A. G. BUTLER.

AURITA DOVES AND BRONZE-WINGED PIGEONS.

SIR,—At last my Aurita-doves are sitting steadily, in one of Abrahams' shallow nests, rammed into a sponge-basket and hung up in one corner of the aviary (*g*).

I found a Bronze-winged Pigeon's egg, only bruised, on the ground; so I stuck a bit of stamp-paper over the indented part and have put it under a White Barbary. Will it hatch? (*h*)

A. G. BUTLER.

(*g*) Since the above was written, they have deserted their eggs, the nest being apparently too much for them.—A.G.B.

My Aurita Doves now breed as freely as Barbary Turtles; they require much space; without it they devote all their energies to fighting.—O.E.C.

(*h*) I have often known Pigeons' eggs thus treated to hatch.—O.E.C.



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